

Welcome to the Nutrition Care Manual - Diet Manual

Academy of Nutrition and Dietetics

Content Release Date: November 10th, 2021

The Nutrition Care Manual® (NCM) Diet Manual is a publication of the Academy of Nutrition and Dietetics.

For questions about materials to be included or participating in future updates as a contributor and/or reviewer, please contact the editor at

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The client education handouts in the Academy's Nutrition Care Manual® are not intended to substitute for nutrition counseling with a registered dietitian. The information is meant to serve as a general guideline and may not meet the unique nutritional needs of individual patients. All medical professionals should consult with a registered dietitian before providing handouts to clients or patients.

With the exception of adding patient-specific recommendations in the Notes section clearly marked in the client education handouts, no part of the handouts may be modified without prior written consent of the publisher.

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Diet Manual

The NCM Diet Manual provides practical, usable knowledge that can be easily implemented in a multitude of nutrition care settings. It is intended to assist food and nutrition services departments with planning nutritionally adequate meals for their patients.

As a communication tool, the NCM Diet Manual assists registered dietitian nutritionists (RDNs) and nutrition and dietetics technicians, registered (NDTR) working with other health care professionals to provide menu choices that are consistent and accurate with regard to optimal nutritional care. Simultaneously, these menus respect patients' individual, ethnic, religious, and cultural needs.

The NCM Diet Manual focuses on how to design and implement nutritionally balanced menus while customizing to individual medical nutrition therapy needs and preferences. It incorporates the clinical care updates found within the NCM, while supporting the "nutrition care" part of the nutrition therapy. The step-by-step process for implementation of the Diet Manual can be saved electronically or printed as hard copy, which represents multiple options for meeting the regulation to have the diet manual available to the health care team. Much of the NCM Diet Manual content can be adapted for staff, patient, and family education. See the Implementation section.

Diet Liberalization and patient choice are emphasized throughout the NCM Diet Manual. The importance of individualizing diet for each patient is essential. Expanding healthy food choices to meet patient requests as well as continuing to meet their varying nutrition needs poses food management and foodservice challenges. Concise, organized menu guidelines are included to facilitate consistent, accurate planning and serving of diets. This NCM Diet Manual also provides direction when stricter diets are essential or are desired by the patient.

Note: The term "patient" will be used throughout the NCM Diet Manual except in sections where regulations of the Centers for Medicare & Medicaid Services (CMS) are discussed. Per the language of CMS regulations, the term "resident" is used in those sections.

Diet Liberalization

In the NCM Diet Manual, a House/Regular diet is the most liberal diet and is not considered a therapeutic or mechanically altered diet. The majority of patients will benefit from a House/Regular Diet designed to meet the Dietary Reference Intakes (DRI) for their age group. Texture-modified diets are indicated for patients with difficulty chewing or swallowing. Therapeutic diets controlling carbohydrates or restricting specific nutrients such as protein, sodium, or potassium may be indicated for patients with impaired metabolic capacity for specific nutrients or to prevent the progression of certain diseases. Unless a therapeutic diet is required to manage a medical condition, it may be preferable to start with a House/Regular Diet and monitor a patient's individual tolerance.

Diet liberalization is essential in the registered dietitian nutritionist's assessment and evaluation process to determine the least restricted therapeutic and texture-modified diet order for a patient. The benefits of liberalizing diets include:

- Increased patient food and beverage choices
- Simplified meal-ordering procedures
- Improved dining experience
- Improved flavor and acceptance of foods served
- Added options to address inadequate intake
- Simplified foodservice
- Decreased potential meal service errors
- Streamlined guidance on diet definitions (who can have what foods/fluids)
- Increased staff time for calm interaction during meal selection and service
- Additional supports for a successful survey process

The RDN can provide education on the importance of liberalizing diets to facility management and the health care team. Use the Letter to the Health Care Team or Diet Manual Approval Committee to summarize the annual changes made to the NCM and effectively communicate the importance of diet liberalization at your facility. Review the Regulations section to choose which supportive documents to include. This Diet Liberalization section can also be a resource to concisely explain of why diets are liberalized.

One of the most commonly cited references that support liberalizing diets is the Academy of Nutrition and Dietetics position paper on individualized nutrition approaches for older adults:

It is the position of the Academy of Nutrition and Dietetics "...that the quality of life and nutritional status of older adults in long-term care, post-acute care, and other settings can be enhanced by individualized nutrition approaches. The Academy advocates that as part of the interprofessional team, registered dietitian nutritionists assess, evaluate, and recommend appropriate nutrition interventions according to each

individual's medical condition, desires, and rights to make health care choices. Nutrition and dietetic technicians, registered assist registered dietitian nutritionists in the implementation of individualized nutrition care, including the use of least restrictive diets. Health care practitioners must assess risks vs benefits of therapeutic diets, especially for frail older adults. Food is an essential component of quality of life; an unpalatable or unacceptable diet can lead to poor food and fluid intake, resulting in malnutrition and related negative health effects. Including older individuals in decisions about food can increase the desire to eat and improve quality of life" (Dorner, 2018).

Adapting a new diet manual presents the opportunity to connect all departments with patient needs and current nutrition philosophy. However, it is generally best practice to review and approve an institution's diet manual yearly. The NCM Diet Manual provides resources to simplify this process for the registered dietitian nutritionist (RDN) and foodservice staff.

Regulations dictate that the diet manual be accessible to the health care team. Because it involves many members of the health care team during the implementation process, a diet manual becomes the avenue for effective, consistent communication with diet order terminology and definitions and emphasis on individualization. The diet manual approval process requires the health care team to review updated resources and information regarding nutritional health in order to implement evidence-based nutrition care within health care settings.

Using Quality Assurance Performance Improvement (QAPI) for Implementation

Successful implementation of the NCM Diet Manual can be guided through the QAPI process. By documenting steps and strategies through QAPI forms and meetings, patient and staff input is collected and applied. Involve patients via patient, resident, and family councils and menu meetings. The process becomes a project for the whole community, empowering participants with a stake in its success. The QAPI process provides the appropriate education and awareness of the contents of the diet manual enhancing its adaptation. Suggested additional resources include the CMS QAPI Resources or Academy MQii page for review of the QAPI process and for examples of forms to use.

RDN Role in Menu Planning Goals and Diet Manual Implementation

The NCM Diet Manual is the guide for menu planning, reflecting current healthy eating guidelines and assisting foodservice departments to prepare for patient expectations. It is the means to meet patient needs by providing food and dining choices that exceed their expectations. RDNs and foodservice management customize the diet manual to establish consensus on what food items are available to be served at the health care facility and what should be served for each diet using definition of each diet. By using the diet manual as its working document, the Food and Nutrition Services team can feel confident that menu choices are accurate for correlating diet orders, consistent with patient requests, and congruous with regulation requirements.

Menu planning requires determining which foods are acceptable for each diet type. Diet Guide Sheets or often called Diet Breakout Sheets, list foods allowed and not allowed for each specific diet. Communicating menu modifications to foodservice staff is essential for effective food production and accurate meal service. Diet Guide Sheets or any effective communication forms used at a facility, should decrease confusion and improve accuracy during serving. The more liberalized diet philosophy a facility embraces, the easier these sheets are to follow. The RDN's involvement with menu planning can vary greatly depending on the setting for nutrition care (acute or post-acute), organizational structure of your facility, and its regulations.

Nutrition Care Manual products (NCM, PNCM) are consistent with the Centers for Medicare & Medicaid Services' Interpretive Guidelines and the Joint Commission's Hospital Accreditation Standards. Nutrition Care Manual products (NCM, PNCM, SNCM) are also consistent with the Academy's Evidence Analysis Library, Academy position papers, and the Nutrition Care Process.

Follow these seven steps annually to implement and customize your NCM Diet Manual.

1. Collaborate on Diet Manual Philosophy and Goals

Review and agree on diet manual philosophy and menu planning goals along with members of the health care team. Include registered dietitian nutritionist (RDN), Food and Nutritional Services team, nursing, speech therapists, administration, and other team members. The following resources from the NCM Diet Manual will assist you with achieving a successful diet manual and menu implementation:

- Focus on diet liberalization
- Emphasize patient choice and patient-directed care
- Incorporate considerations that respect religious, cultural, ethnic, and usual eating practices
- Revisit therapeutic diets and texture-modified diets essential for medical nutrition therapy
- Review NCM Update Summary to discuss the most recent updates to NCM

2. Identify All Diet Orders Used at Your Facility

- Review NCM Diet Order Terminology & Definitions to determine which diet order terms are available for use at your facility.
- Obtain a list of diets approved by your medical committee for use at your facility.
 - Expert tip: A list of diets used by your foodservice department can be generated from your diet office software.
 - Compare your facility's current diet order terminology and definitions with the NCM Diet Manual names (performed by clinical nutrition staff).
 - Identify NCM diets to be used at your facility in consultation with medical staff leadership and medical director, referring to the evidence to support use of diets.
 - As needed, clinical nutrition staff will create its own unique folder of diets.
- Record the names for all facility diets and NCM diets in the NCM Diet Manual Crosswalk Worksheet. **Expert tip: Use the exact names of NCM**

Diets/Client Education materials at your facility to simplify this process.

- Review Obsolete Diets to ensure you avoid using these diet terms in your facility's accepted diet terminology.
- Diet names used in all areas should match: medical record documentation (electronic or paper), printed menus or tray tickets, diet manual, documents used by the kitchen staff (i.e. menu spreadsheets), diet guide sheets, and policies and procedures.

3. Make Changes to Facility Diets as Needed

- Identify current diet names used at your facility that may require a change and/or diet names that require clarification of foods served.
- Discuss modifications to existing diet order names with health care team and agree on final names for all diets. Document and date this discussion.
 - Consider involving speech therapy with diet order terminology and definitions of texture-modified diets.
- Change existing diet terminology to match new, updated diet names.

4. Customize the NCM Diet Manual to Your Facility

The facility administrator completes this step which will connect the NCM diets with the names of the diets offered at your facility. Customizing the NCM Diet Manual crosswalk is an important step with meeting regulations concerning diet manuals.

- Use the NCM Diet Manual Crosswalk Guide and the information gathered in NCM Diet Manual Crosswalk Worksheet completed in step two to customize the NCM Diet Manual to your facility.
- Create and update Facility Pages for unique diets used at your facility (for those that have not been published among NCM Diets). See FAQ on Creating Facility Pages.

5. Obtain Diet Manual Approval

- Select one of the NCM Diet Manual Approval Form templates (1, 2, or 3) for your facility (depending on the participants of the approval committee). There are three templates to choose from, but only one template needs to be completed.
- Review changes at indicated committee meetings for formal approval. Optional: Prepare a Letter to the Health Care Team or Diet Manual

Approval Committee to summarize the annual changes made to the NCM and effectively communicate the importance of diet liberalization at your facility.

- Obtain required signatures from all relevant parties.

6. IP Authentication

Work with your facility's IT department to access the NCM by using IP authentication. This will allow users at your facility to access the NCM without a username and password. Your IT department can provide you with the IP address used at your facility which can be entered to create seamless access. Contact NCMSupport@eatright.org for assistance with IP authentication.

7. Back-up Diet Manual

Create an abridged back-up diet manual binder composed of relevant and frequently used diet manual materials. This can be stored in a common area within the food and nutrition department where it can be accessed by staff. Determine if multiple copies of the abridged back-up diet manual binder are needed in other locations within your facility. Creating this resource will ensure that you have access to important NCM content in the event of a power outage or inability to access the internet. Additionally, this will meet annual survey expectations. The abridged back-up diet manual should include the following items:

Electronic

- The back-up PDF of the NCM saved to a flash drive which includes the NCM, the NCM Diet Manual, and Client Education.
 - An electronic back-up is recommended because printing all these NCM resources would require several thousand pages to print.
 - To download the back-up PDF of the NCM please go to "How to download the back-up PDF of NCM or PNCM " listed under Frequently Asked Questions. You must login as the administrator to do so.

Printed

- Frequently used and relevant NCM Client Education handouts
- Commonly used therapeutic diets and texture-modified diets
- NCM Diet Order Terminology & Definitions
- Customized facility pages including your Facility's Diet Manual Crosswalk and any added diets unique to your facility
- NCM Table of Contents
- Current NCM Update Summary
- A signed copy of one of the NCM Diet Manual Approval Forms (1, 2, or 3)
- Letters to the health care team or diet manual approval committee

Regulations

Regulations and standards of practice dictate the importance of routine nutrition assessment and evaluation of the least restrictive therapeutic and texture-modified diet for each patient. The culture change movement and focus on patient-directed care and decision making continue to influence regulatory expectations, which affect nutrition and foodservice department policy, procedures, and operations. Refer to federal, state, and local regulations for your area of practice.

The following topics are nutrition-related issues which impact practice. Utilize the resources and references listed to educate the health care team and to support nutrition standards of practice. After each annual update of the NCM Diet Manual, review these topics to support adoption of a liberalized diet philosophy.

- Malnutrition is associated with the increased likelihood of re-hospitalization (Academy CMS comments, 2015; CMS, 2014). See the Academy MQii page Defeat Malnutrition Today for more information.
- Overly restricting a patient's diet can lead to inadequate nutrition intake and weight loss; lack of evidence to support effectiveness of strict therapeutic diets (Dorner, 2018; Handy, 2015; Starr, 2015; Pioneer Network, 2011; Byington, 2008; EAL, 2009).
- Unintended weight loss, which is one of the biggest health concerns among older adults (Dorner, 2018; Niedert, 2016; EAL, 2009)
- Quality of life situations where educated choices are made including the right to refuse therapeutic or texture modified diets (Handy, 2015; Walker, 2012; Pioneer Network, 2011).

Meeting Regulations and Preparing for Survey

NCM Diet Manual users must adhere to facility policies and procedures and local, state, and national regulations. The NCM Diet Manual is designed to meet the unique regulatory needs in multiple settings and across state lines through its customizable features.

To assist in facility customization and to prepare for the survey, follow the step-by-step process found in the Implementation section of the diet manual. Repeat the Diet Manual review and implementation process each year. This exercise will ensure continued use of the NCM Diet Manual at your facility and proactively keep the manual current with regard to regulatory requirements. Update the customized NCM Diet Manual annually to meet your facility's specific needs and to reflect actual diet terminology and content used at your facility.

Creating an abridged back-up diet manual of the NCM using printed copies of the NCM meets regulations that require that it be available to the health care team. However, retaining electronic copies on multiple desktops, CD, or USB drives is the economical option. The health care team should be aware of the NCM Diet Manual resources for standard and emergency processes and how to locate them.

During a facility survey, a surveyor may be interested in viewing the facility-specific backup manual (printed resource). This backup manual includes the following resources stored in an accessible, labeled binder:

Electronic

- The back-up PDF of the NCM saved to a flash drive which includes the NCM, the NCM Diet Manual, and Client Education.
 - An electronic back-up is recommended because printing all these NCM resources would require several thousand pages to print.
 - To download the back-up PDF of the NCM please go to “How to download the back-up PDF of NCM or PNCM “ listed under Frequently Asked Questions. You must login as the administrator to do so.

Printed

- Frequently used and relevant NCM Client Education handouts
- Commonly used therapeutic diets and texture-modified diets
- NCM Diet Order Terminology & Definitions
- Customized facility pages including your Facility's Diet Manual Crosswalk and any added diets unique to your facility
- NCM Table of Contents
- Current NCM Update Summary
- A signed copy of one of the NCM Diet Manual Approval Forms (1, 2, or 3)
- Letters to the health care team or diet manual approval committee

Locating Regulations for Health Care Facilities

Health care facility regulations are updated frequently and vary significantly depending on the setting. You can find regulations applicable for your setting below:

Acute Care

- Joint Commission Standards, On-Site Survey Process, Requirements, Manuals and Related Resources
- See CMS Guidance to Laws and Regulations for Appendix A of the State Operations Manual which includes CMS §482.28 Condition of Participation: Food and Dietetic Services

Post-Acute Care

- Joint Commission Standards, On-Site Survey Process, Requirements, Manuals and Related Resources
- CMS Final Rule 2016 , CMS MLN Connects: 2016 final rule,
- CMS Regulations and Guidance Manuals
- See CMS Guidance to Laws and Regulations for Appendix PP State Operations Manual, LTC Survey Pathways (dining, kitchen, resident council, dialysis, nutrition, hydration, tube feeding, and dementia care), and New Long-term Care Survey Process
- CMS QAPI Tools
- State regulations (Nursing Home Regulation Plus): find regulations specific to individual states
- Assisted Living
 - Regulated on a state by state basis
- Corrections
- Home Care

Where applicable, regulations are discussed in detail in subsections of the NCM Diet Manual.

Acute Care

Other factors that may affect menu content include:

- CMS Regulations and Interpretive Guidelines
- The Joint Commission

Skilled Nursing Facilities

The Centers for Medicare & Medicaid Services (CMS) regulations mandate that skilled nursing facilities must provide each resident with a "nourishing, palatable, well-balanced diet that meets the daily nutritional and special dietary needs of each resident" (CMS, 2017). The regulations (CMS, 2017) currently state that the menu:

- Must meet the Recommended Dietary Allowances (RDA) of the Food and Nutrition Board of the National Research Council, National Academy of Sciences
- Is not intended to meet the nutrition needs of all residents and, therefore, must be adjusted to consider individual differences
- Uses a meal planning guide
- Is planned in advance
- Is followed
- Offers substitutions of similar nutritional value

(Note: Because these are CMS regulations regarding skilled nursing facilities, the term "resident" is used here.)

Menus are planned in coordination with the registered dietitian nutritionist, who adjusts the menu for residents' individual needs. There are many meal planning guides available online, including the following:

- 2020-2025 Dietary Guidelines for Americans
- MyPlate
- MyPlate for Older Adults
- USDA Food Pattern
- Dietary Approaches to Stop Hypertension (DASH) Eating Plan

The House/Regular Diet Menu Planning Guide outlines the nutritional components of all healthy eating plans above, which can be used as a meal planning guide consistent with regulation requirements.

Trends in Ordering Diets

There is a growing recognition that overly restrictive diets have a negative impact on the nutrient intake of hospitalized patients and long-term care residents. The most liberal diet order possible is recommended to improve patient satisfaction and allow for optimal nutrient intake. A general, healthful diet designed to meet recommendations in the US Dietary Guidelines (DGA, 2015) is typically lower in energy, fat, sodium, and sugar than the diet of most patients and eliminates the need for many traditional diets. Some traditional diets are being replaced as evidence accumulates that they are ineffective for their intended use. In fact, the efficacy of traditional diet progression following gastrointestinal surgery has been subject to reevaluation in the past decade with strong evidence pointing toward a new model. (Cabral, 2011; Warren, 2011; Willcutts, 2010; Rees, 2017). Other diets are no longer needed due to changes in medication management or other medical improvements. A list of obsolete diets is included in this manual.

There is a growing recognition that even small changes in diet can make a difference in primary, secondary, and tertiary disease prevention if they are maintained over time. Initial instructions to patients concerning these changes are provided to patients in acute and long-term facilities by a registered dietitian nutritionist (RDN) or a nutrition and dietetics technician, registered, who works under the direction of the RDN. For long-term behavior change, or nutritional management of chronic diseases such as diabetes and obesity, referral to an RDN to see the patient in an ambulatory setting is indicated.

Initiating The Nutrition Care Process in Acute, Long-Term, and Ambulatory Care

In ambulatory care, the physician (or for non-Medicare patients, a nurse practitioner or physician assistant) must refer the patient to a registered dietitian nutritionist (RDN). The Academy of Nutrition and Dietetics provides a list of ICD-10 codes for RDNs, Instructions for Referral Forms, MNT Referral form, and Sample Completed Form for these purposes. It is helpful if both the patient and the RDN have a clear understanding of the reason for the referral. The patient should also have a clear understanding that nutrition intervention is an ongoing process that requires follow-up to achieve intervention goals. In the ambulatory setting, the patient will be charged for the RDN's services; often these charges are covered by insurance.

In acute care facilities, accrediting bodies mandate that, when warranted, patients are screened for nutrition problems upon or shortly after admission (Joint Commission, 2017). Screening may be performed by nurses or other personnel, but the results of screening are used by staff RDNs to identify patients whose nutrition problems are serious enough to warrant further investigation. Accrediting bodies mandate that a qualified RDN or nutritional professional perform a nutrition assessment in patients where it is deemed necessary and document the results in the medical record along with a plan of care. This process is included in the hospital's fee and does not generate an additional charge to the patient.

In long-term care, nutrition screening is performed at regular intervals according to rules governing the **minimum data set (MDS)**. Accrediting bodies specify the interval for nutrition assessment and reassessment based on data entered into the MDS. In acute and long-term care, regular follow-ups to monitor nutritional status are performed according to institutional policy and procedure. In all settings, collaboration with the RDN to discuss nutrition intervention goals, opportunities to improve patient outcomes, and protocols for patient care is appropriate.

Levels of Autonomy

Food and nutrition orders—including diets, supplemental feedings or products, vitamins, and minerals—are ordered for each patient as part of the admission orders. Changes to the nutrition prescription are ordered as needed and depending on institutional policy, each subsequent order typically overrides all previous orders. A list of available diets, the formulary of enteral products, and the formulary of nutrition-related medications such as vitamin and mineral supplements is usually provided to physicians during medical staff orientation and reflects the diet terminology and definitions used within the health care facility. This information is updated periodically and the changes communicated to the medical staff, such as during the annual diet manual update/approval process.

All diets served in a health care facility are intended to provide the Dietary Reference Intakes for the population served unless another standard is specified by certification or accrediting organizations. An exception is the clear liquid diet, which should only be used for one or two meals as it is deficient in all of nutrients. The majority of patients will benefit from a liberalized, House/Regular Diet designed to provide the Dietary Reference Intakes (DRI, 2011) for their age group. Texture-modified diets, such as the dysphagia diets, are indicated for patients with difficulty chewing or swallowing. Diets restricted in specific nutrients such as protein, sodium, or potassium may be indicated for patients with impaired ability to absorb, metabolize or excrete the respective nutrients or to prevent certain diseases.

This manual also contains evidence-based nutrition recommendations for nutrition management of several diseases states. This information is available in the Conditions section.

Levels of autonomy

The RDN's autonomy in writing diet orders varies by state and health care facility. Following are four different approaches:

- RDN implements the ordered nutrition intervention; recommends initiating, modifying, or discontinuing
 - Example: The physician orders enteral nutrition and the RDN writes in the intervention section of a medical record entry: Recommend changing to 2 kcal per mL feeding at 40 mL/hr. A physician order is required for implementation.
- RDN implements the nutrition intervention within the parameters of an approved protocol or algorithm
 - Example: The physician orders enteral nutrition and consults the RDN to advance the feeding “per protocol.” The RDN follows approved protocol to enter orders to advance the feeding rate and obtain specified laboratory tests. However, the RDN cannot order additional

laboratory tests or advance the feeding at a different rate than what the protocol specifies.

- RDN independently orders initiation, modification, or discontinuation based on scope of practice
 - Example: The physician consults the RDN to start feedings. The RDN evaluates the patient and independently orders and advances the feedings, based on a list of clinical privileges obtained after she presented her credentials to the medical staff.
- “Qualified RDN” independently initiates, modifies, or discontinues diet based on facility protocol and state legislation. See Implementation Steps—Order Writing Privileges for the RDN
 - Example: The “qualified RDN” initiates or modifies diet orders to implement a nutrition intervention (eg, therapeutic diet, nutrition support regimen, nutritional supplements, medical foods, vitamin or mineral supplements, nutrition-related medication adjustment, laboratory tests or medical procedures relevant to nutrition care, nutrition education, nutrition counseling, or referrals to other health care professionals). See Implementation Steps—Order Writing Privileges for the RDN for details.

What to Expect from a Nutrition Consult

The registered dietitian nutritionist (RDN) sees the patient to obtain a food and nutrition history and collect important information related to the nutrition assessment of the individual. The nutrition and dietetics technician, registered (NDTR) may assist the RDN with select nutrition consultations, such as evaluating a food or meal intolerance, evaluating need for prescribed texture modifications, or providing nutrition education. The RDN will review the medical record for anthropometric data; the results of biochemical and other medical tests and procedures; and the medical, surgical, medication, and social history. A nutrition-focused physical exam may also occur. The results of these data are incorporated into a Nutrition Assessment, which is used to derive a Nutrition Diagnosis. The consult typically contains a plan for Nutrition Intervention, which incorporates goals that are based on an individualized nutrition prescription and is intended to resolve the nutrition diagnosis. The consult will also contain a description of planned Nutrition Monitoring, Evaluation and Reassessment.

In acute and long-term care, the consult is placed in the medical record, but it may be mailed or electronically transmitted to the referring physician by an RDN working in ambulatory care.

Depending on the level of autonomous RDN practice within the institution, the RDN may make recommendations for nutrition intervention that require a physician order for activation. In a growing number of institutions, by approving protocols that allow certain activities by RDNs, physicians have delegated authority to RDNs to order laboratory tests for monitoring the response to interventions, modify diet orders, advance enteral feedings, and order parenteral nutrition. In a few organizations, RDNs have presented credentials to the medical staff and obtained clinical privileges to function autonomously according to an established scope of practice (Silver, 2003; Myers, 2002).

Physician FAQs

Question: Why can't I get the nutritional solution or therapeutic diet I ordered?

Answer: There is a vast number of enteral products available. It would be cost prohibitive for a hospital's nutrition department to stock every brand of enteral formula. Therefore, the hospital nutrition committee ensures there are appropriate products for each disease condition available. The Nutrition Care Manual (NCM) formulary has a list of all nutritional solutions that can be customized by your RDN to display only the nutritional solutions available in your hospital. For more information, ask your facility's NCM administrator or clinical nutrition manager.

In addition, many hospitals enter into contractual relationships with nutrition formula manufacturers that provide financial savings. These contracts may require brand changes for similar products as hospital contracts are updated or renegotiated for cost savings purposes. Though you may not be able to order some formulas, similar products can often be substituted to meet the need of your patient.

Nutrition is a dynamic field. As RDNs embrace evidence-based medicine, some diet therapies previously thought to be efficacious but that lacked evidence have been replaced by medical nutrition therapy (MNT). As nutrition research improves, diet therapies previously thought to be efficacious may become obsolete. See obsolete diets.

Question: How do RDNs initiate specialized nutrition support?

Answer: Conduct a nutrition assessment that includes food and nutrition history evaluation, anthropometric measurements, biochemical evaluation, client history, and nutrition physical examination. The recommendations will depend on data availability and the individual patient's medical conditions. If the patient is malnourished, nutrition support is appropriate.

If the gastrointestinal (GI) tract is functional, enteral nutrition is the appropriate route. The route of administration for enteral nutrition depends on the therapy, which can be long term or short term. If there is intolerance of enteral nutrition or the use of enteral nutrition is not feasible, parenteral nutrition may be appropriate for patients with severe malnutrition (McClave, 2016; MacDonald, 2014; Lefton, 2014).

Parenteral nutrition may also be considered when enteral nutrition support is not feasible and nutrition support will be needed for at least 7 days. Indications for parenteral nutrition include (McClave, 2016; Lefton, 2014):

- Bowel obstruction that cannot be bypassed
- Intractable vomiting refractory to medical management
- Severe necrotizing pancreatitis
- Short bowel syndrome (\leq 100 cm small bowel remaining)
- Paralytic ileus

For total parenteral nutrition/peripheral parenteral nutrition orders, check with the nutrition support team for the procedure to order standard or customized solutions (McClave, 2016; Lefton, 2014).

Question: Which formula do I order?

Answer: Rather than proceeding with ordering formula, you should first order a nutrition consultation with an RDN. The RDN will complete a complete nutrition assessment and make recommendations for an appropriate enteral formula that will meet your patient's nutrition needs. The enteral formula selected will be selected from the facility's (adult and pediatric) enteral formulary. The facility formulary provides detailed nutrition information for standard formulas, concentrated formulas, disease-specific formulas, and oral formulas available. Consult with the RDN if have concerns about ordering the correct nutritional solutions, ordering enough enteral nutrition formula to meet your patient's nutrition needs, or determining indications for enteral nutrition.

Question: Does insurance pay for nutrition consultations?

Answer: Nutrition consultations performed in the hospital by RDNs are not charged to the patient. These consultations are designated as part of the contracted room rate. Some hospitals or health care facilities have developed processes in the electronic medical record to allow RDNs to drop charges for nutrition consultations, which are not sent to the patient nor the insurance payer. This process allows facilities to track RDN productivity by measuring the number of nutrition consultations while prohibiting the possibility of double charging for the same service.

Diet Manual > Ordering Diets in Your Health Care Facility > Reimbursement

In the ambulatory setting, reimbursement varies by condition and type of insurance. However, do not assume a patient will decline a nutrition consultation just because insurance does not cover the visit. A facility may also have policies for writing off or discounting charges for patients without insurance or with limited household income.

Since 2002, Medicare coverage has been extended to pay for MNT for beneficiaries with diabetes or non-dialysis renal disease (chronic renal insufficiency and 36 months post-renal transplant). The law defines MNT services as "nutritional diagnostic, therapy, and counseling services for the purpose of disease management which are furnished by a registered dietitian or nutrition professional... pursuant to a referral by a physician...." (Academy, 2006).

- For both non-dialysis renal disease and diabetes, Medicare will provide a total of 3 hours of basic coverage in the first year a beneficiary receives MNT and 2 hours per year in subsequent years. Only the number of hours of basic coverage per year is restricted. The referring RDN is to determine the exact length and number of the visits as long as the yearly limit is not exceeded.

Examples for diabetes include, but are not limited to, the following:

- A beneficiary converting from oral medication to insulin
- A beneficiary with gestational diabetes requiring frequent meal plan modification.

Examples for non-dialysis renal disease include, but are not limited to, the following:

- A beneficiary experiencing a clinically significant decrease in renal efficiency
- A beneficiary demonstrating a lack of understanding of the renal nutrition therapy.
- Furthermore, additional hours will be considered medically necessary and covered if the treating physician determines there is a change in medical condition, diagnosis, or treatment regimen that requires a change in MNT and thus orders additional hours during that episode of care.

Finally, if the treating physician determines that receipt of both services is medically necessary, Medicare will cover both diabetes self-management training (DSMT) and MNT in initial and subsequent years without decreasing either benefit as long as DSMT and MNT are not provided on the same dates of service.

MNT provided by an RDN, should be billed using one of the following three Current Procedural Terminology (CPT) codes or Healthcare Common Procedure Coding System (HCSPCS) codes:

- 97802, "initial assessment and intervention, individual, face-to-face with the patient, each 15 minutes"
- 97803, "re-assessment and intervention, individual, face-to-face with the patient, each 15 minutes"
- 97804, "group (2 or more individual[s]), each 30 minutes"
- G0270, "Medical nutrition therapy; reassessment and subsequent intervention(s) following second referral in same year for change in diagnosis, medical condition, or treatment regimen (including additional hours needed for renal disease), individual, face-to-face with the patient, each 15 minutes.
- G0271, "Medical nutrition therapy; reassessment and subsequent intervention(s) following second referral in same year for change in diagnosis, medical condition, or treatment regimen (including additional hours needed for renal disease), group (2 or more individuals), each 30 minutes.

Per CPT code, MNT assessment and/or intervention done by a physician should be coded using a preventive medicine or other evaluation and management code. Medicare is consistent with CPT in this regard because the law defines MNT for Medicare purposes as being provided by a qualified RDN or nutrition professional who has met the following criteria:

- Minimum of BS degree in nutrition or dietetics from an accredited program in dietetics
- Completion of 900 hours of dietetics practice under supervision of RD or nutrition professional
- Licensed or certified as an RD or nutrition professional by state in which services are performed (federal employees can be licensed or certified in any state)
- RD credential with the Commission on Dietetic Registration (CDR) is proof that education and experience requirements are met.
- Grandfathered dietitian, nutrition professionals licensed or certified as of December 21, 2000.

Diet Manual > Ordering Diets in Your Health Care Facility > Obsolete Diets and Diet Terminology

Obsolete Diets and Diet Terminology

The table below lists conditions associated with obsolete diets and describes the outdated nutrition specifications. Use of the noted obsolete terms and associated recommendations should be avoided.

Condition	Obsolete Diet Name	Rationale for “Obsolete” Label
Acute Renal Failure	<ul style="list-style-type: none">• Renal diet (a single diet for all renal diseases)• Low-protein diet	Previously, a standard 60 g protein, 2 g sodium, 2 g potassium diet was recommended for all individuals with renal disease. Malnutrition can develop during the course of chronic kidney disease and may be related to increased morbidity and mortality for those with renal disease. Inadequate protein and inadequate energy intake are critical causes of malnutrition in this population. Diet orders should be liberalized as much as possible to maximize oral intake and quality of life. See Renal client education handouts for current nutrition therapies.
		Research has shown that patients postoperatively had no difference in tolerance to a clear liquid diet or regular diet. Significantly more energy and protein were consumed on a regular diet compared with a clear liquid diet (74% vs 42% of energy and 58% vs 8% of

Bowel Surgery	<ul style="list-style-type: none"> • Clear liquid diet 	<p>protein) (Jeffery, 1996; Franklin 2011). Careful evaluation of diet progression is needed in patients with significant bowel resections, strictures, fistula, or motility disorders. Advancing from a clear liquid to a full liquid diet may not be necessary as patients may tolerate an oral diet more quickly than previously anticipated. Full liquid diets are often very high in fat and may not be well tolerated post bowel surgery. Clear liquid diets should be used with extreme caution and should not be used for more than 1-2 meals at a time; hospital protocols should be developed to monitor these parameters. Research has demonstrated that clear liquid diets are used longer than necessary (greater than 3 days) and with poor justification (Franklin, 2011). See Clear Liquid Diet Nutrition Therapy (this diet should not be used more than 1 day).</p>
	<ul style="list-style-type: none"> • Renal diet (nonspecific for stage of kidney 	<p>Previously, a standard 60 g protein, 2 g sodium, 2 g potassium diet was recommended for all individuals with renal disease. Malnutrition can develop during the course of chronic kidney disease and may be related to increased morbidity and</p>

Chronic Kidney Disease (CKD)	<ul style="list-style-type: none"> disease) •60 g protein •60 g protein, 2 g sodium, 2 g potassium •Giovanetti diet 	mortality for those with renal disease. Inadequate protein and inadequate energy intake are critical causes of protein-energy malnutrition. Diet orders should be liberalized as much as possible to maximize oral intake and quality of life. See Renal Nutrition Therapy for current nutrition therapies.
Cirrhosis	<ul style="list-style-type: none"> • Low-protein diet 	Traditionally, protein restrictions were imposed on patients with cirrhosis because of concern about their ability to metabolize protein. Protein has also been restricted because of the theory regarding its potential to provoke or cause hepatic encephalopathy. These protein restrictions can provoke an inadequate intake and subsequent malnutrition. Few patients are truly protein sensitive or intolerant. Most patients with cirrhosis do not need a dietary protein restriction. See Cirrhosis Nutrition Therapy for current nutrition recommendations.
	<ul style="list-style-type: none"> •Low-cholesterol diet •Low-fat diet •American Heart 	Previously, patients may have been prescribed one diet emphasizing reduction of saturated fat, cholesterol, and sodium. Research suggests several dietary patterns are appropriate for cardiovascular disease, which emphasizes healthy food choices (Jacobson,

<p>Coronary Artery Bypass Graft (CABG)</p> <p>Cardiovascular Disease</p>	<p>Association I or American Heart Association II diet</p> <ul style="list-style-type: none"> • National Cholesterol Education Program Step I or Step II diet • Low-sodium diet • Low-salt diet • Mild salt-restricted diet 	<p>2015; Eckel, 2013).</p> <p>Research suggests that for individual with heart failure, the RDN should individualize energy intake, assess need for purposeful weight loss (once fluid status is stable), individualize protein intake 1.1-1.4g/kg, and tailor sodium (2000-3000 mg) and fluid intake (1-2 L fluid per day) (Academy, 2017).</p> <p>See Cardiovascular section client education handouts for current nutrition therapies.</p>
<p>Diarrhea</p>	<ul style="list-style-type: none"> • Clear liquid diet 	<p>Because of the high sugar content present in clear liquid diets, the resulting hyperosmolality may exacerbate diarrhea. See Diarrhea Nutrition Therapy for current nutrition recommendations.</p>
<p>Diverticulosis</p>	<ul style="list-style-type: none"> • Low-fiber diet • Regular diet avoiding nuts, seeds, and hulls 	<p>Historically, dietary advice has recommended avoidance of nuts, seeds, and hulls. Recent literature has reevaluated this approach based on the lack of evidence in published research that supports these common nutrition recommendations (Strate, 2008; Eglash, 2006). See Diverticular Conditions for current nutrition recommendations.</p>

Gastroesophageal Reflux Disease (GERD)	<ul style="list-style-type: none"> • Bland diet 	The term "bland diet" and the use of milk to treat heartburn are considered to be obsolete. See Gastroesophageal Reflux Disease (GERD) Nutrition Therapy for current recommendations.
Hepatitis	<ul style="list-style-type: none"> • Low-protein diet • Low-fat diet • Low-caffeine diet 	Previously, many patients were restricted in their protein intake with the diagnosis of chronic hepatitis/liver disease as a means of preventing or controlling hepatic encephalopathy. Other nutrients that may have been historically restricted include fat and caffeine; however, these do not require restriction unless symptoms of the liver disease dictate. See Hepatitis Nutrition Therapy for current recommendations.
Hypoglycemia (non-diabetic)	<ul style="list-style-type: none"> • No concentrated sweets 	Traditional advice that is no longer appropriate is to avoid foods containing sugars and to eat protein-containing and fat-containing foods. Research on the glycemic index and sugar raises questions about the appropriateness of restricting only sugars, as many of these foods have a lower glycemic response than many of the starches that were recommended in the past. Furthermore, protein is also a stimulant of insulin, and a high-fat intake, especially saturated fats, may interfere with the body's

		use of insulin. See Hypoglycemia (Not Caused by Diabetes) Nutrition Therapy for current recommendations.
Nephrotic Syndrome	<ul style="list-style-type: none"> • High-protein diet • Renal diet (a single diet for all renal diseases) 	<p>Previously, a standard 60 g protein, 2 g sodium, 2 g potassium diet was recommended for all individuals with renal disease. Malnutrition can develop during the course of chronic kidney disease and may be related to increased morbidity and mortality for those with renal disease. Inadequate protein and inadequate energy intake are critical causes of malnutrition. Diet orders should be liberalized as much as possible to maximize oral intake and quality of life. See Nephrotic Syndrome Nutrition Therapy for current recommendations.</p>
Organ Transplant	There are no obsolete diets or names of diets associated with transplantation alone.	<p>Obsolete diet terms for organ transplant patients are only applicable with comorbidities—for example, "ADA (American Diabetes Association) diet" for an organ transplant patient with diabetes mellitus. There are, however, obsolete practices such as "no fresh fruits and vegetables" or "low-bacteria diet." These restrictions are not necessary for organ transplant recipients.</p>

Pancreatitis	There are no obsolete diets or names for pancreatitis	Many institutions consider a progression in diet from clear liquids to full liquids to be standard. However, a full liquid diet may be problematic as it typically consists of high-fat, lactose-containing (ie, milk-based) foods that may exacerbate symptoms. Furthermore, patients who have had prolonged nothing by mouth (nil per os, or NPO) status or who have experienced a gastrointestinal insult may have temporarily reduced levels of the lactase enzyme. They may develop a transient but resolvable lactose intolerance. Progression to a solid, low-lactose, low-fat, high-protein nutrition therapy may prudent in achieving tolerance during recovery. See Pancreatitis Nutrition Therapy for current recommendations.
Preeclampsia/Eclampsia	<ul style="list-style-type: none"> • No added salt • Mild salt restricted 	
Pressure Ulcers	A specific diet for wound healing has not previously existed.	Those with pressure ulcers are often ordered a high-protein, high-kilocalorie diet without consideration of individual protein and energy needs, increased fluid requirements, obesity, and changes in gastrointestinal tolerance that are associated with malnutrition.

Urinary Stones/Urolithiasis	<ul style="list-style-type: none"> • Low-calcium diet 	
Type 1 Diabetes	<ul style="list-style-type: none"> • ADA (American Diabetes Association) diet • No concentrated sweets diet • No sugar added • Low sugar • Liberal diabetic diet 	<p>The term "ADA diet" has never been clearly defined but has usually meant a physician-determined energy level with a specified percentage of carbohydrate, protein, and fat based on exchange lists. This term should no longer be used because neither the Academy of Nutrition and Dietetics nor American Diabetes Association endorse any single meal plan or specified percentages of macronutrients.</p> <p>With regard to the no concentrated sweets, no sugar added, low sugar, and liberal diabetic diets: None of these approaches to food and meal planning is appropriate because each unnecessarily restricts sucrose. See Type 1 Diabetes Nutrition Therapy for current recommendations.</p>
	<ul style="list-style-type: none"> • ADA diet • No 	<p>The term "ADA diet" has never been clearly defined but has usually meant a physician-determined energy level with a specified percentage of carbohydrate, protein, and fat based on exchange lists. This term should no longer be used because neither the Academy of Nutrition and Dietetics nor American</p>

Type 2 Diabetes	<p>concentrated sweets diet</p> <ul style="list-style-type: none"> • No sugar added • Low sugar • Liberal diabetic diet 	<p>Diabetes Association endorse any single meal plan or specified percentages of macronutrients.</p> <p>With regard to the no concentrated sweets, no sugar added, low sugar, and liberal diabetic diets: None of these approaches to food and meal planning is appropriate because each unnecessarily restricts sucrose. See Type 2 Diabetes Nutrition Therapy for current recommendations.</p>
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Overview

After 9/11, foodservice operations in the United States evolved to include emergency preparedness plans as not having a disaster plan affected many health care facilities in New York and surrounding areas. Before then, much disaster planning had been done in isolated groups—in “silos”—with little information sharing and interactivity. Now planning involves all levels of government, as well as community agencies and volunteers from charitable organizations. Hospitals, assisted living facilities, hospices, long-term-care facilities, and retirement communities have specific regulations for disaster planning related to foodservice for their facilities.

The Joint Commission has adopted an “all hazards” approach for responding to a wide range of facility-specific disasters. Disaster plans are expected to include as much local support as possible and to use information from practice drills or real disasters to identify and address challenges to improve the plan. Practice drills should involve working with vendors for a disaster trial to work through established processes; this could involve a personnel availability audit and identification of community assistance (and contact information) from other local health care facilities, vendors, volunteer organizations such as the Salvation Army, and religious organizations. It could also involve planning for downtime to obtain diet orders and other crucial information in the event of computer outage and subsequent file recovery.

Tips for Developing a Disaster Plan

- Perform a Hazards Vulnerability Analysis (HVA) using information from the Federal Emergency Management Agency (FEMA) website to identify the hazards that could potentially disrupt food services.
- Focus on one category of disasters at a time. For each type of disaster, create a “problem scenario,” a brief description of the type of disaster for which you are developing a plan. Identify your team members and their roles and a “communication protocol.” The communication protocol should list the names of and contact information for individuals, vendors, and agencies (including the Red Cross) with whom you will communicate during a disaster once your plan is activated.
- Develop a short-term contingency plan that you will follow during the first 72 hours of the disaster.
- Develop a long-term contingency plan to use if the disaster continues for more than 72 hours. It may be necessary to activate some or all of your long-term plan in less than 72 hours.
- Review the plan and perform a practice drill at least once annually. Identify issues and challenges that you might encounter and strategies to address them. Update your communication protocol and the plan to accommodate any changes in regulations or the community-wide plan.
- Develop a site-specific disaster plan following the tips presented here for each type of disaster you could experience.

Planning

- Determine your responsibilities for foodservice during a disaster, including the need to serve not only patients but also staff and first responders. Determine if your facility will be used as a triage center, in which case you may be responsible for serving members of the community and possibly their pets, too.
- Keep a 7-day inventory of shelf-stable items for the number of meals (patient and nonpatient) you anticipate serving in a sustained emergency that may disrupt the availability of water, power, and/or delivery of food supplies. At minimum, a residential care facility should consider an inventory of food products for 72 hours, and a hospital should consider an inventory of food products for 96 hours.
- Have a plan for water emergencies and identify a source for potable water in the case of a loss of water supply.
- Coordinate the availability of backup electrical power, if not already connected to emergency power, with plant operations. Priority needs for electrical generation include the following:
 - Refrigeration
 - Hoods
 - Stoves, ovens, and steamers
 - Freezers
- If your department has separate insurance coverage, keep a printed copy of your insurance policy with your disaster plan. If you do not have a separate policy, when appropriate, determine what will be covered in the disaster, so that you know what records to maintain with regard to food, supplies, and equipment before they are destroyed. It is a good idea to take photos of the food, supplies, and equipment that could/will be destroyed, in the event you need this information for insurance payments.
- Determine your recovery plan. This plan is a basic statement of what you plan to do to restore operations, in terms of feeding patients, staff, and first responders.

Supplies

- When feasible, store food, water, and cleaning and sanitary supplies, including disposables, onsite. Inventory and rotate supplies to ensure that all expiration dates are followed. Include security for food products in the overall facility security plan.
- Have a plan for the maintenance of refrigerated foods, should there be a loss of power. This includes, but is not limited to, monitoring temperatures and limiting access to the refrigerated areas. Consider drafting a memorandum of understanding (MOU) for obtaining refrigerated trucks to hold refrigerated foods temporarily. The MOU should also include a

provision for obtaining fuel to keep the refrigerated trucks operating.

- Determine how you will work with your food vendors during a disaster to make sure that your facility has food products to meet your needs. Consider drafting MOUs with vendors that outline the responsibilities of both your facility and the vendors during a disruption of the food supply chain in a disaster.
- Plan to conserve food supplies immediately at the beginning of a known emergency. Strategies will be incident-specific and may include but are not limited to:
 - Cutting back to two meals per day for nonpatients
 - Reducing hours of cafeteria services
 - Curtailing complimentary beverages
- Ensure that gas and other devices are stored safely.
 - Your facility should have the ability to heat water and/or limited food products through the use of gas grills or other such devices with grills.
- Work with information technology (IT) to ensure that needed foodservice information is on backup and is retrievable in an emergency. Keep up-to-date printed copies of your disaster plan; your communication protocol, including contact information for food vendors and other suppliers; and your MOUs.
- Be prepared for your facility to function on its own, should resources from outside your facility not be available.
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Storage

- Store disposable dinnerware for the number of meals you may need to serve for the time frame of the identified planning period.
- Store hand sanitizers, in the event that water is not available for hand washing before and after meals.
- Store cleaning supplies for washing the limited number of “pots and pans” that may be used.
- Have a plan for waste disposal. Note that waste disposal will increase significantly with the use of disposables.

Disaster Menu Overview

- Each health care facility is required to have a 7-day disaster menu with a nutrient analysis. Check with your food supplier/distributor for a disaster menu and a complete nutritional analysis. Find out if your memorandum of understanding (MOU) can include a clause asking vendors to ship a predetermined order for your disaster menus when a disaster is declared. Refer to the sample 3-day disaster menu as a guide in planning the required 7-day emergency menu.
- If there is a disruption in the food supply and/or delivery, fresh produce and dairy products will be the first items in short supply. The disaster menu should be adapted to use perishable foods first, especially if there is a loss of power for refrigeration.
- If it is anticipated that there may be a loss of water and/or heat, the food products in inventory that require water and/or heat should be used first, if possible.
- Monitor patients on special diets, especially patients with food allergies and those whose diets need texture modifications. Be mindful that given your limited food supplies, it may not be possible to strictly follow the menus for patients on disease-specific diets, for example, renal patients with low-sodium diet needs or patients on diabetic diets.
- Be sure to plan for the needs of patients receiving enteral nutrition, parenteral nutrition, and standard and specialized infant formulas in your disaster plan and menu.
- Consider the food needs and customs of special populations and address them in your disaster plan, for example, whether family members can bring in food for patients, if feasible, especially if there are certain religious, social, or cultural customs that should be honored.
- During a disaster, many people need even more than the recommended average of 1 gallon of water/fluid per day. The typical individual amount needed depends on age, physical activity, physical condition, climate, and time of year.

Note that health care facilities are required to have a 7-day disaster menu. The sample menus presented here are intended as an example only.

SAMPLE MENUS

Breakfast for 3 Consecutive Days

Assorted juices
Dry cereal with milk (if available)
Canned fruit
Bread, spread, jelly/jam
Instant coffee/tea for adults
Hot cocoa for children

Lunch and Dinner for 3 Consecutive Days

Soup (if possible)
Peanut butter and jelly sandwiches (lunch—day 1)
Fruit juices, instant coffee/tea
Protein salads for both lunch and dinner—tuna, chicken, pimento cheese
Peanut butter and jelly with bread/crackers
Cold mixed canned vegetable salad, dressing
Canned fruit, ready-to-eat puddings, gelatins
Chips (if available)
Juice, instant drinks

These menus are adapted here with permission from Puckett (2003).

Overview

Emphasis on the dining experience and freedom of choice with regard to food selection in the health care setting affects menu development and the types of foods patients expect to be available (Dorner, 2010). According to an Academy of Nutrition and Dietetics position paper regarding individualized nutrition approaches for older adults, "...the quality of life and nutritional status of older adults in long-term care, post-acute care, and other settings can be enhanced by individualized nutrition approaches. The Academy advocates that as part of the interprofessional team, registered dietitian nutritionists (RDNs) assess, evaluate, and recommend appropriate nutrition interventions according to each individual's medical condition, desires, and rights to make health care choices. Nutrition and dietetic technicians, registered assist RDNs in the implementation of individualized nutrition care, including the use of least restrictive diets. Health care practitioners must assess risks vs benefits of therapeutic diets, especially for frail older adults" (Dorner, 2018).

The culture change movement and focus on patient-directed care and decision making continue to influence regulatory expectations, which affect nutrition and foodservice department policy, procedures, and operations. The Pioneer Network's New Dining Practice Standards provide guidance and support to Food and Nutritional Services Departments moving towards a more resident-directed care atmosphere, including dining and food choices. Although parts of this resource are currently being updated, it remains a pivotal resource supporting culture change. The 2016 updated CMS regulations for long-term care emphasizes respecting patient rights, choices, and food preferences, including dining options (CMS, 2016). The most liberal diet provides for choice at mealtime, enhancing the dining experience and promoting a calm atmosphere.

As noted in an Academy of Nutrition and Dietetics position paper regarding individualized diets, "Most people look forward to mealtime and the chance to enjoy good food and socialize with others. Eye-appealing, familiar menu options that meet nutritional needs may decrease the risk of undernutrition and unintended weight loss in older adults (Dorner, 2010). Malnutrition or undernutrition has been defined as "inadequate intake of protein and/or energy over prolonged periods of time resulting in loss of fat stores and/or muscle stores, including starvation-related malnutrition, chronic disease or condition-related malnutrition and acute disease or injury-related malnutrition" (eNCPT, 2017). To minimize malnutrition and other related symptoms resulting from inadequate food and fluid intake from unpalatable or unacceptable diets, older adults must be involved in decisions about their food. Increased independence in regard to food choices can increase willingness to eat and improve quality of life in older adults (Dorner, 2018).

Patient Eating Skills and Dining Atmosphere

Each patient within a dining venue may have different eating skills, which can change over time. Therefore, frequent monitoring and evaluation of support services that promote independence or involvement of the patient in the eating process is essential. A dining atmosphere affects a patient's desire to eat and observations can provide insight on improvement opportunities.

Dementia and dining is an emerging area of study that has yielded successful interventions applicable to most patients, including those without dementia. The following resources may assist in improving intake in this population and track improvement processes through QAPI program:

- Focused Dementia Survey Tool (a CMS QIS Tool) to monitor the dining environment for opportunities for improvement.
- Dining Concerns to Report
- Reminders for Improving Dining Experience
- Vanderbilt Center for Quality Aging Mealtime Assistance
- Vanderbilt Center for Quality Aging Between Meal Assistance

The Finger Foods guidelines that follow are frequently used as an intervention to promote participation or independence during dining. The Finger Foods Nutrition Therapy client education handout includes a summary of items to consider and provides space to individualize a meal plan for a specific patient. It then can be used for in-servicing kitchen and nursing staff.

Evaluating Dining Options and Transitioning Dining Service

Understanding what foods/menus need to be served to patients and residents requiring therapeutic diets or feeding assistance may affect decisions regarding which dining styles to offer. Constructive, constant customer (patient) feedback on foods served and the foodservice experience may provide valuable data for changing dining services offered. By incorporating simple changes or by transitioning to new dining options, departments can improve patient satisfaction and attain successful surveyor inspections.

Empowering employees to make changes requires constant reminders of the reasons a health care facility decides to transition dining services. Documenting these reasons and their benefits can improve acceptance of the changes among employees. Compile a list of facility-specific change motivators by interviewing staff, patients, and families. This list may include:

- Meeting or exceeding regulatory compliance
- Removing tray service, which decreases tray errors (no trays = no tray errors)
- Improving patient satisfaction with service and menu items
- Decreasing food waste
- Eliminating patient waiting period to receive meal of choice
- Improving food intake at mealtimes
- Empowering patients to decide what to eat at the moment of service
- Coordinating meal service time—patients dining together are served at the same time
- Improving dining atmosphere with staff, patient, and family participation
- Improving staff communication
- Increasing positive staff interaction with patients

There are many areas to investigate when planning a change in dining services within a health care facility. Evaluate the following considerations in the context of your facility:

● Regulations

- CMS regulations and interpretive guidelines regarding dining
- Focused dementia survey tool (CMS QIS Tools)
- State regulations and sanitary codes
- City/town codes
- Life safety codes (involve maintenance and housekeeping departments)

● Resources: Financial, staff, equipment, and other

- Unused space for potential dining areas

- Underutilized equipment
- Equipment to adapt for new use
- Determination of use of volunteers
- Engagement of staff from all departments
- Management support and budget

- **Knowledge gained from site visits, webinars, seminars, and networking**

- Successful and unsuccessful projects/events
- Documentation of dining space size (all dining facilities within the institution) in relation to number of patients
- Identification of equipment needs, including small wares
- Observation of job duties of employees within different departments
- Observation and discussion of positive dining atmosphere including demonstration of “all hands on deck” staffing philosophy

- **Tools and reports**

- Process-flow sheets: current method and anticipated process
- Cost estimates
- Dining meetings and staff education in-service records
- QAPI reports, including performance improvement projects

- **Timeline**

- Implementation options

- Start change at one meal for the whole facility first
- Transition all three meals on one unit first
- Change all three meals throughout the entire facility simultaneously
 - Requires extensive planning

- Documentation of transition steps and dates

- Updated frequently

- **Job description and duties**

- Anticipation and documentation of changes to each staff position
- Coordination of changes in responsibilities with nursing and other departments
- Identification of gaps and overlaps among staff positions
- Documentation of new service procedures (who does what, when, and where) and their approval process
- Evaluation of scheduling and staff break times
- Identification of who will help determine menu choices
- Identification of who will post daily and weekly menus, collect menus, process menu choices

- **Training, test trials, and communication**

- Employees who need training on new dining processes
- Cross-training to increase flexibility of staffing
- Small pilot trials and documentation of feedback from all parties (staff, residents, family)

- Dissemination of information through dining meetings and department meetings
- Documentation of efforts and process changes through QAPI reports

● **Audit menus and foodservice procedures**

- Simplification of menu offerings
- Usual amounts served of each menu item
- Popular last-minute requests
- Production notes and tally notes per unit serviced
- Patient diet order list
- Diet order and guide (or breakout sheets) for service guideline
- Division of dining service from one big serving area into multiple, smaller areas

● **Menu and dining choices and how patient chooses menus**

- All computerized and handwritten methods available for patient menu selection
- Ordering system required by individual units within the institution
- Timing of short-order items such as sandwiches
- Updated placecards or/and use of second set of menu tickets
- Menu selection scheduled as close to mealtime as possible
- Patient's usual food and beverage likes and dislikes known by staff and available at menu selection
- Establishment of communication system and procedures for change in patient dining location

Putting it all together

Documenting the process and procedures requires determining who on staff does what, when and where. Communicate new process to staff and periodically update as improvements and additions are identified.

Example:

Step 1	<p>Transition to dining</p> <ul style="list-style-type: none"> • Team members work together to prepare room for dining • Arrange tables with tablecloths, place settings, and centerpieces • Turn televisions off and turn music on to provide dining atmosphere
Step 2	<p>Prepare for meal</p> <ul style="list-style-type: none"> • Nursing assists patients to prepare for meal • Freshen up: wash hands and offer clothing protectors • Assist in usual dining area and prepare patients or residents who will stay in their rooms for meal

Step 3	<p>Meal service</p> <ul style="list-style-type: none"> • Dietary department delivers beverage cart; all staff help to serve beverages of choice • Discuss and show menu choices and obtain patients' menu choices • Dietary plates meal choice and nursing checks accuracy • Meal delivered to patient and individualized set up and assistance provided
Step 4	<p>Meal service for those eating in rooms</p> <ul style="list-style-type: none"> • Dietary, nursing, and other team members coordinate • Provide clean tray table setup and placemat • Serve beverage preferences (consider patient safety) • Gather meal orders from patients • Dietary plates meal choice and nursing checks accuracy • Meal delivered to patient and individualized setup and assistance provided
Step 5	<p>For all meal service areas:</p> <ul style="list-style-type: none"> • Ask about and provide dessert of choice • Clear dishes and document patient intake as required by facility

Overview

The goal of planning the House diet is to meet multiple patient nutrition requirements and expectations as well as to provide robust, appealing choices. The House/Regular diet in the NCM Diet Manual is based on the General, Healthful Nutrition Therapy client education handout and Normal Nutrition section of the Nutrition Care Manual. Facilities use many names for this diet including, regular diet, house diet, or general, healthy diet. When completing the NCM Diet Manual Crosswalk Worksheet, identify the terminology your facility uses for the House/Regular Diet which will connect your facility's terminology to the NCM diet definition. Diet orders include two components: The therapeutic component (house) and the texture component (regular).

The goal for facilities should be to have a majority of residents receive the House/Regular Diet order. The House/Regular Diet order allows for freedom of meal choice, especially at the time of service. This diet order, when written effectively, can serve the needs of most residents, including those with chronic illnesses. Develop House/Regular menus to provide an eating pattern consistent in carbohydrates with recommended healthy levels of energy, protein, and fat. Including several alternate menu items and culturally sensitive choices will provide options. The need to order the strict, consistent carbohydrate diet order for most patients with diabetes is thus eliminated. If the House/Regular diet is also planned to meet heart-healthy eating principles, the need to order a strict "cardiac"-type diet is also eliminated.

The House/Regular Diet can lead to simple adaptations to meet the needs of residents who require altered textures. See the Texture Modification section to review foods allowed on different mechanically altered diets and consider texture modifications while planning the overall menu.

Designing a varied House/Regular menu that meets the nutrition needs of most patients provides the ease to liberalize diets and decrease the number of therapeutic diets required. Potential positive outcomes include:

- Improving patient satisfaction via additional menu choices
- Creating a more relaxed dining atmosphere
- Decreasing clerical costs associated with managing multiple therapeutic diets
- Enhancing positive patient interactions (without concern for therapeutic diet restrictions)
- Allowing focus on serving meals that accurately correspond to individual residents' texture diets
- Decreasing labor costs and food costs
 - Allows for menu choices at point of service
 - Adds control of anticipated inventory
- Adhering to federal and state regulations by:
 - Improving dining services and atmosphere
 - Increasing patient choice options
 - Improving intake, potentially reducing patient weight loss

Developing a House/Regular Diet

1. Review all Federal and State Regulations. Refer to the Regulations section for additional resources.

- Review pertinent CMS documents
- Review state regulations
 - State regulations often include more specific details on menu planning
 - Review guidelines specific to the patient population such as acute care, assisted living, hospice, or corrections

2. Determine Nutrition Content

- Determine kilocalorie range for facility diet. Many facilities set their range at 2000 kcal to 2400 kcal per day.
 - Research the average, range, and most common weight of your residents. These data can give you a general idea of your resident population's energy needs

Example:

If the average weight of your residents is 70 kg requiring 1750 kcal to 2100 kcal per day (25 kcal/kg to 30 kcal/kg), you may want to set a menu goal for providing 2000 kcal/day to 2400 kcal/day. Keep in mind that residents may not eat 100% of the planned menu or may be choosing alternatives, therefore increasing the importance of healthy eating plan.

- Determine protein range
 - Setting range for protein: 10%-20% of total energy from protein
- Determine carbohydrate range
 - Setting range for carbohydrates: carbohydrates should provide 45%-65% of total energy and be evenly distributed throughout the day
 - Keep the carbohydrate consistent and balanced throughout the day to meet many patients' nutrition needs and medical nutrition therapy.
- Determine fat range
 - Setting range for fat: 20%-35% of total energy from fat

Menu Planning Example

Determining Menu Components for Energy, Protein, Carbohydrates, and Fat:

Energy: You have determined the average and most common weight for patients at your facility is 70 kg; daily energy needs for people at this weight are estimated at 1750 kcal to 2100 kcal (25-30 kcal/kg). You recognize that many patients will not eat all the foods on the planned menu; may choose the alternative; or may have additional needs related to healing, weight gain, and other health concerns. A reasonable energy goal per day for menus would be 2100 kcal.

Protein: Using 2100 kcal as your base, you have determined that 10%-20% estimated energy from protein would range from 210 kcal to 420 kcal. This calculates as 53 g to 105 g protein per day.

Fat: Using 2100 kcal as your base, the upper end of 35% of energy from fat is 735 kcal from fat, or 82 g fat per day.

Carbohydrates: Using 2100 kcal as your base, 45% to 65% of energy from carbohydrate would amount to 945 kcal to 1365 kcal from carbohydrate, or 236 g to 341 g carbohydrate per day.

Summary:

- 2100 kcal per day
- 30 g protein per meal, 3 meals per day=90 g protein=360 kcal from protein
- 25 g fat per meal, 3 meals per day=75 g fat=675 kcal from fat
- 90 g carbohydrate, 3 meals per day=270 g carbohydrate=1080 kcal from carbohydrate

Total= 2115 kcal*:

- **17% protein**
- **32% fat**
- **51% carbohydrate**

*Approximately 300 kcal remaining for snacks and beverages

3. Set goal for sodium intake

- The 2020-2025 US Dietary Guidelines encourages people to decrease their sodium intake (USDHHS/USDA, 2020).
 - This may not always be possible for some patients.
 - Facilities may choose to plan a house diet that includes a sodium intake greater than 2300 mg/day. In this instance, low-sodium choices should be available for patients who request or need these dietary modifications.
- Malnutrition may be a patient's primary concern, and restricting sodium may not be indicated. There is also research showing contraindications for restricting sodium in older adults (British Geriatric Society, 2016; Academy, 2010).
- The House/Regular Diet must be planned with multiple menu options to allow residents to choose lower-sodium items. Refer to Sodium section and Dietary Guidelines for Americans for additional resources.

4. Determine Food Preferences of Patients

The goal is always to write a menu that your patients will enjoy eating and enhance their dining experience. The best written, most nutritionally sound, cost-effective menus will be of no use if they do not include items your patients will eat. Planning, researching, and anticipating patient food requests will help ensure the House/Regular Diet is well accepted.

Common Preferences

Many patients may prefer a lower-carbohydrate eating pattern. Those patients may still have a House/Regular Diet order but the registered dietitian nutritionist can individualize those patients' meal plans to modify the carbohydrate content. See Consistent Carbohydrate Diet and Sodium-Restricted Diet for examples of how to modify the house menu to address therapeutic diet needs.

Many patients may follow a vegetarian eating pattern, possibly requiring some individualization

(Academy, 2016). Use the Nutrition Care Manual Vegetarian Nutrition section to individualize meal plan preferences and to assist with planning vegetarian options as part of the House/Regular menu.

Regional Food Preferences

It is important to familiarize yourself with the types of food, style of cooking, and flavoring most desired in the geographical area of your facility. Some examples of regional foods in the United States include:

- Biscuits/gravy or muffins/butter
- Grits or other hot cereal such as oatmeal, cream of wheat, and Maypo
- Style of eggs and condiments served (salsa, hot sauce)
- Style and frequency of serving potatoes
- Chowders, cream soups, cold soups and broth soups
- Use of different types of bread, rolls and wraps for sandwiches
- Favorite local entrees such as “French pork pie,” bratwurst, or “lobster roll”

Examples of Regional Food Preference Questions to Consider:

- How often does the population in a given region expect certain foods (sausage, bacon, ice cream)?
- Are potatoes served with gravy?
- What types of desserts are preferred: pie, custards, pudding, cookies, cakes or cupcakes; fruit cobblers?

Demographic preferences

Examples of Demographic Questions to Consider:

- In what age groups are patients at your facility?
- Do you serve more baby boomers (born 1946-1964) or traditionalists (born 1925-1945)?
- Are your patients accustomed to using the terms “dinner” or “supper”?
- Which meal do they prefer as the main (largest) meal?
- Are your patients largely “meat and potatoes” demographic?
- Are there many patients who would prefer a menu with more salads and wraps?

Religious Holidays and Special Occasions

Patients often look forward to special meals to celebrate a variety of important events. Consider the individual needs of the facility/center as well as the variety of patient expectations. Through working with other department managers and patients, identify weekly or monthly events that affect the menu. By building these patterns into your menu, there will be fewer changes needed for the routine House/Regular menu.

Suggested Special Meals and Events Menu Offerings:

- Ice cream floats every Thursday (do not serve ice cream as dessert on Thursdays; serve “light” dessert)
- Fish option every Friday at both lunch and supper (fulfills some religious needs)
- Pasta/Italian meal every Wednesday
- Pizza dinner (evening meal) every other Monday
- Monthly barbeque on Tuesdays
- Weekly “Sundae on Sunday” activity every Sunday at 2pm

Plan one alternative vegetarian meal to anticipate meeting patient religious, ethnic, and cultural needs/requests.

Review religious holidays and decide in advance what menu options to make available. If possible, create special celebrations for some holiday mealtimes.

Writing the House/Regular Diet

Steps for writing a menu

1. Determine which meal planning guide will be used at your facility. It may be necessary to create a menu checklist to ensure all components are met. Adjust as needed to meet state regulations and patient requests.

See Menu Planning Checklist for Nutritionally Balanced Meals for a template

2. Determine menu cycle length. A cycle menu between 2 to 5 weeks is most common.
 - An additional consideration is how many menu cycles throughout year will change to accommodate seasonal items
3. Separate basic entrée types throughout week and from week to week (eg, beef, pork, chicken, fish, pasta, vegetarian)
4. Complement entrees with patient's preferred sides, incorporating fruits and vegetables and whole grains. Establish a consistent system for ensuring variety—including foods, shapes, and textures—across days/weeks in meal plans.
5. Consider the carbohydrate content of desserts to keep carbohydrate amounts consistent throughout day. One suggestion is to serve a higher carbohydrate and energy-dense dessert at one meal (for example, at lunch) and a fruit-based dessert at the other meal where dessert is served.
6. Provide menu alternates to give patients the most choice possible.
 - Offer alternatives that are lower in fat, lower in sodium, and have more subtle flavors
 - Consider texture-friendly alternates (such as mashed potatoes)
 - Create an “always offered” quick order menu so residents can always select a meal that meets their preferences
 - Offer vegetarian alternatives at all meals.
 - Examples of entrée options:

Chicken breast	Chicken salad	Salmon filet
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Turkey breast	Hamburger	Tuna salad
Chef salad	Baked cod	Grilled cheese
Pasta	Lentils/rice	Beans/rice

- Examples of options for sides:

Green bean casserole	Green beans
Fruit salad	Fresh sliced apples
Potato salad	Baked potato
Mixed vegetables	Steamed carrots

7. Determine recipes for each menu item, including texture-modified and therapeutic recipes.

- Consider ingredient availability, quantity, form, and necessity
- Provide precise ingredient measurements and preparation directions.
- Include serving sizes
- Review preparation methods to ensure that not all items need to be prepared in the oven, stove top, or steamer
- Ensure that cooking staff skill level matches preparation requirements
- Consider visual appeal of items on the plate or tray
- Assess inventory to ensure you have the appropriate dishware, including casserole dishes, and other necessary supplies for service

8. Analyze cost of menu execution, factoring in both food and labor costs.

9. Perform broad review of menu, including analysis of the factors below to ensure these requirements are addressed on the menu for each day of the week. Mark off each item on the checklist once it has been reviewed/confirmed.

Additional Checks and Balances:	Meal	Sun	Mon	Tue	Wed	Thur	Fri	Sat

Is there at least one serving of a fruit and a vegetable in the meal?	B							
	L							
	D							
Is there a variety of color in the meal?	B							
	L							
	D							
Is there a variety in texture and shapes in the meal?	B							
	L							
	D							
Is there a variety in flavor in the meal?	B							
	L							
	D							
Do flavors of the meal complement each other?	B							
	L							
	D							
Is there a variety in preparation process for the meal?	B							
	L							
	D							
Will foods maintain appropriate temperature during service?	B							
	L							
	D							
Can the day's menu be prepared within budget?	B							
	L							
	D							

10. Review house diet draft and make adjustments for carbohydrates and sodium content so the house diet offerings can also be used for consistent carbohydrate and sodium-restricted diets.

- Can be done for entire facility menu or on an individual basis

- Consider items patients frequently request for daily menus:
 - Cereal
 - Yogurt
 - Soup
 - Ice cream
 - Fruit or fresh banana
 - Juice

Benchmarking and Usage Reports

Accurately monitoring portion sizes served and plate waste may also provide insights on acceptance of what you are serving and whether portion sizes served are as specified in the daily menu. There are several objective tools for gathering and assessing data on resident menu preferences:

• Usage data

The goal of usage data is to track which items are ordered the most. The registered dietitian nutritionist (RDN) can record at each meal how many residents choose the main entrée, how many choose each alternative, and so on.

Example:

Entree	Number of residents who ordered
Main: Beef Stroganoff	85
Alternative 1: Baked chicken	20
Alternative 2: Salmon	15
Alternative 3: Turkey sandwich	5

• Meal Satisfaction Surveys

The goal of meal satisfaction surveys is to receive written feedback from residents/patients on quality, variety, and temperature of foods as well as the general service.

• Focus Groups:

Conduct focus groups to expand your understanding of trends identified by the written survey data. Good focus groups have a defined purpose, ask meaningful questions, use well-developed scripts, and are overseen by an experienced facilitator.

• Resident Council Meetings:

These meetings, often conducted in extended residential settings, offer an opportunity for participating residents to provide broad-based information on preferred foods, snacks, and dining choices on behalf of all residents.

- The RDN can assist in the development of a resident food committee that is independent of the resident council.
- Residents can also vote on the time they would like the meals served, serving style choices, dining options, and what snacks they want to be offered.
- These meetings provide an opportunity to remind residents that they always have other choices if they do not like the food that is served and that they always have access to snacks.
- Refer to CMS QIS tools to monitor effectiveness of these meetings:
 - Resident Council Interview
 - Dining Observation Survey

● **Trial New Menu Items**

Pilot new menu ideas by having cooks prepare sample items for participating residents and staff to taste test at resident council meetings or by inviting vendors to offer residents a taste of new products. Include description of new menu items when residents are taste testing.

● **Determine Food Preparation Methods and Plate Presentation**

Research shows that adding flavor and visual appeal to foods makes the dining experience more enjoyable and reduces the need for added sodium and fats in the preparation process (Huisman, 2016; Michel, 2015). See Sodium-Free Flavoring Tips.

- Choose spices and fresh herbs that enhance the natural flavor of the food to reduce sodium and limit kilocalories from non–nutrient-dense foods to meet the recommended dietary guidelines.
- Flavor is a combination of how taste interacts with the other senses. Flavor is also affected by how food is held before service. For example, warming or chilling a food affects its overall taste, texture, and appearance.
- Consider garnishing and other plating presentation strategies while planning menus. Serving some items in a small dish on the plate or serving stews in a casserole dish can improve visual appeal.

House/Regular Diet

Definition: The House/Regular diet is based on general, healthful nutrition from a variety of foods. It is planned using the Dietary Guidelines for Americans and serves as the basis for all other diets used within health care facilities and encourages basic provision of nutrients from grain, protein, vegetable, fruit, and dairy foods. Food preferences are easily accommodated.

Indications: The House/Regular diet is appropriate for individuals without nutrition-related problems or those with nutrition-related problems who need a liberalized diet to allow more dietary choices to improve intake.

Nutritional Adequacy: This diet meets the Dietary Reference Intakes (DRIs) for macronutrients and micronutrients.

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Whole grains including whole wheat, barley, rye, buckwheat, corn, teff, quinoa, millet, amaranth, brown and wild rice, sorghum, and oats;</p> <p>Grain products, such as bread, rolls, prepared breakfast cereals, crackers, and pasta made from whole grains</p>	<p>Sweetened, low-fiber breakfast cereals</p> <p>Packaged (high sugar, refined ingredients) baked goods</p> <p>Snack crackers and chips made of refined ingredients, cheese crackers, butter crackers</p> <p>Breads and starches made with refined ingredients (white flour) and saturated fats, such as biscuits, frozen waffles, sweet breads, doughnuts, pastries, packaged baking mixes, pancakes, cakes, and cookies</p>

Protein Foods	Fresh or frozen red meat, including lean, trimmed cuts of beef, pork, or lamb a few times per week; avoid processed meats, such as bacon, sausage, and ham	
	Fresh or frozen poultry, including skinless chicken or turkey, avoid processed meats that are higher in sodium	Marbled or fatty red meats (beef, pork, lamb), such as ribs
	Fresh, frozen, or canned seafood, including fish (salmon, herring, and sardines), shrimp, lobster, clams, and scallops at least twice per week.	Processed red meats, such as bacon, sausage, and ham
	Eggs and egg substitutes	Poultry (chicken and turkey) with skin
	Nuts and seeds, such as unsalted peanuts, almonds, pistachios, and sunflower seeds	Fried meats, poultry, or fish
	Nut and seed butters, such as peanut butter, almond butter, and sunflower seed butter, reduced sodium.	Deli meats, such as pastrami, bologna, or salami (made of meat or poultry)
	Soy foods, such as tofu, tempeh, or soynuts	Fried eggs
	Meat alternatives, such as veggie burgers, and	Salted legumes, nuts, seeds, or nut/seed butters
		Processed meat alternatives with high levels of sodium or saturated fat

	<p>sausages based on plant protein, reduced sodium</p> <p>Legumes, such as dried beans, lentils, or peas at least a few times per week in place of other protein sources, unsalted</p>	
Dairy	<p>Low-fat or fat-free milk, yogurt (low in added sugars, cottage cheese, and cheeses</p> <p>Frozen desserts made from low-fat milk</p> <p>Fortified soymilk</p>	<p>Whole milk, cream, cheeses made from whole milk, sour cream</p> <p>Yogurt or ice cream made from whole milk or with added sugar</p> <p>Cream cheese made from whole milk</p>
Vegetables	<p>A variety of fresh, frozen, and canned (unsalted) whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables; low-sodium vegetable juices</p>	<p>Canned or frozen vegetables with salt, fresh vegetables prepared with salt</p> <p>Fried vegetables</p> <p>Vegetables in cream sauce or cheese sauce</p> <p>Tomato or pasta sauce with high levels of salt or sugar</p>
	<p>A variety of fresh, frozen, canned and dried whole unsweetened fruits, canned fruit packed in water or fruit juice without added sugar</p>	<p>Fruits packed in syrup or</p>

Fruits	added sugar. 100% fruit juice (1/2 cup) limited to one serving per day	prepared with added sugar
Oils	Unsaturated vegetable oils, including olive, peanut, and canola oils; margarines and spreads, which list liquid vegetable oil as the first ingredient and does not contain trans fats (partially hydrogenated oil); salad dressing and mayonnaise made from unsaturated vegetable oils	Solid shortening or partially hydrogenated oils Solid margarine made with hydrogenated or partially hydrogenated oils Margarine that contains trans fats; butter
Beverages	Coffee, tea (unsweetened), water, 100% fruit juice	Sweetened drinks, including sweetened coffee or tea drinks, soda, energy drinks, and sports drinks
Other	Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients	Sugary and/or fatty desserts, candy, and other sweets; salt and seasonings that contain salt Fried foods

House/Regular Diet Sample 1-Day Menu

Meal	Menu
Breakfast	1 cup oatmeal 1/2 cup blueberries 1 ounce almonds 1 cup low-fat or fat-free milk
	3 ounces turkey slices 2 slices whole wheat bread 1/4 cup lettuce for sandwich

Lunch	2 slices tomato for sandwich 1 ounce reduced-fat, reduced-sodium cheese 1/2 cup fresh carrot sticks 1 banana 1 cup unsweetened tea
Dinner	3-ounce baked salmon with basil 1/2 cup quinoa 1 cup green beans 1 cup mixed greens salad with 1 tablespoon olive oil 1 whole wheat dinner roll 1 teaspoon margarine (for roll)
Snack	1 cup low-fat, plain yogurt with 1/2 cup sliced peaches

Nutrient Analysis

Overview

Patients may often show signs of inadequate intake for a multitude of reasons and may benefit from nutrition interventions to increase their energy and/or protein intake. Providing preferred foods, fortified foods, snacks between meals, and/or supplements are effective measures to improve patient intake. Assessing the patient for the following nutritional concerns may help to identify individual approaches to improve intake:

- Poor appetite: recent or prolonged
- Difficulty chewing or swallowing
- Inability to communicate needs
- Eating skills with recent changes
- Decreased resources for obtaining, storing, or preparing food
 - Socioeconomic factors
 - Access to grocery store
 - Access to transportation
 - Adequate housing
- Impaired cognition skills that affect impulse to eat and lack of awareness to eat
- Lack of community and family support
- Limited social interaction or preference to dine privately
- Taste changes
- Dry mouth
- Poor dentition and/or ill-fitting dentures
- Early satiety
- Pain issues
- Unappetizing mealtime environment
- Constipation or diarrhea—acute or chronic condition or other GI symptoms (bloating, cramps, etc.)
- Increased nutrition needs that are unattainable from usual eating pattern
- Fatigue
- Shortness of breath
- Polypharmacy
- Depression

A patient's nutritional concerns may also change throughout their stay in a health care setting. The following topics identify nutrition interventions and provide ideas on how to individualize meal plans to improve intake as well as enhance effectiveness of a facility's program. Client education handouts have been developed to provide resources for patient, family, and staff.

"Food first" is the gold standard of nutrition intervention—usually successful on the first attempt—and has led to culture change in the health care industry (Pioneer Network, 2011). "Food First" philosophy attempts to improve intake by individualizing what is served and when it is served according to patient choices and usual routines. This approach often minimizes the use of medications and supplements (Pioneer Network, 2011). Some examples of the "food first" philosophy include (Pioneer Network, 2011):

- Asking about their favorite foods and incorporating them into the meals
- Observing, discussing, and offering items to learn patient's favorite and best-accepted foods
- Individualizing patient's eating pattern and including extra portions of favorite foods while avoiding undesired foods
- Identifying where, when, and with whom the patient enjoys eating
- Aligning snack and nourishment systems with patient preferences
- Respecting cultural and religious preferences

Fortified Foods

“Fortified foods” have had nutrients added to them, typically energy and/or protein. For a patient who has inadequate intake, this can increase the amount of energy and protein without increasing volume of the meal or adding supplements. The benefits of fortified foods include:

- Each portion contains more nutritional value than a non-fortified portion
- You can serve the same amount of food or number of food items offered
- Food waste is prevented because there is lower volume of food served
- Food items are usually sweeter with higher fat content and may taste better
- The likelihood the patient will feel overwhelmed by the amount of food offered is minimized
- The patient at nutritional risk is identified and the importance of consuming the special item is emphasized (may be labeled and may be part of diet order)

Routine monitoring of patient acceptance of the fortified food is essential to identify if additional interventions are required. Evaluate if residents with a decline in eating skills are receiving adequate eating assistance when the fortified food is provided. The patient may consume more of a fortified food between meals instead or in addition to meals.

Tips for a Successful Fortified Foods Program

- Review and update the facility’s policy and procedure regarding fortified foods.
 - Decide if there will be an official “fortified foods” diet and protocol at your institution or if individual fortified foods should be added to a patient’s diet order.
- Diet Terminology: Use NCM Diet Order Terminology and Definition Worksheet to establish use of consistent terminology for fortified foods.
- Develop sample meal plans for staff to follow until the registered dietitian nutritionist can individualize for patients.
- Create a list of regular food and menu items available daily to offer; note energy and protein content (pudding, ice cream, yogurt and custard)
- Establish a purchase list for fortified foods and include nutritional content

- Involve cooks, staff, and residents in the development of fortified food recipes
- Monitor taste and nutritional value of fortified foods and document any changes to recipes
- Evaluate consumption and acceptance of fortified foods by observing meal and snack time service
- Monitor patient eating skills and tolerance of food texture
- Dining: Ensure delivery of fortified foods at mealtimes, attractiveness/palatability, and timing of delivery of the fortified food is as patient requests (during or between meals)
- Liberalize diet as much as possible to allow for wider selection and increased palatability of foods

General tips to increase energy content of foods offered:

- Add butter, oil, cream, nut butters, and other fat sources
 - Butter and sour cream in mashed potatoes
 - Butter or oil on vegetables
 - Nut butters mixed into hot cereal
 - Avocado on sandwiches
- Add extra moisture: gravies, condiments, and dipping sauces
 - Gravy on meats and potatoes
 - Extra mayonnaise or ketchup
 - Sauces for dipping
- Add extra sugar, maple syrup, honey, corn syrup, and agave
 - Hot cereal topped with any of above
 - Number of sugars preferred in hot beverage
 - Topping on desserts as feasible
- Use non-fat dry milk, nut butters, yogurt, pudding mix
 - In cold drinks
 - In non-fat dry milk in hot chocolate or hot beverage
 - Yogurt as substitute for eggs at breakfast
- Use "full-fat" dairy products
 - 2% or higher yogurt—no "diet" yogurt or regular yogurt sweetened with artificial sweetener
 - Full-fat yogurt may be difficult to find; in that case, serve the yogurt with the highest fat content available and without added artificial sweetener
 - Whole milk instead of skim milk
 - Regular cream cheese, sour cream

- Add condensed or evaporated milk

When only extra protein is needed

Patients who need to increase their protein intake may also benefit from supplementation with protein foods. You can help these patients meet their needs by:

- Offering extra eggs in the morning
- Increasing the size of their milk offering and serving skim rather than higher-fat milk, if appropriate
- Adding yogurt, peanut/nut butter, or cottage cheese to a meal
- Offering a protein powder to be mixed into hot cereal
- Offering extra portions of the protein in an entrée
- Providing extra scoop/slices of sandwich filling or strips of cheese/cold cuts
- Offering peanut butter, yogurt, cheese, or milk as snacks
- Adding commercial protein powder or liquid to foods and beverages per facility protocol

See Tips for Adding Protein, Tips for Adding Calories, and High-Calorie, High-Protein Nutrition Therapy for serving ideas and intervention recommendations.

Snacks

Snacks between meals are encouraged for patients with inadequate intake. Snacks allow patients several additional chances during the day to eat, as they may be more alert and ready to eat at various hours and not necessarily during traditional meal times. It also allows them to eat small amounts throughout the day, which is helpful if they are experiencing early satiety. By decreasing portion sizes and the amount of menu items offered at each mealtime, the patient may show improved intake. However, this further emphasizes the importance of snacks between meals to meet their total needs for the day. Patients may also need assistance with consuming snacks.

Overview

Patients may benefit from additional interventions in the form of supplementation to improve inadequate nutrient intake. Offering foods rich in nutrients to improve overall intake is beneficial, especially for older adults who have been shown to demonstrate positive responses to these strategies (Marra, 2009). Oral nutritional supplements can promote increased energy intake when incorporated with feeding assistance from staff (Simmons, 2015), which may result in greater energy intake and weight gain (Silver, 2009). The use of supplements to address malnutrition in health care settings has been shown to be effective (Lemmel Ricardi, 2013; Correia, 2014).

Homemade Supplements

Homemade Supplements:

Research shows improved nutritional status and function with multifaceted interventions that include homemade supplements (Pioneer Network, 2011).

Instead of commercially produced products, homemade supplements can be produced by using high-energy and high-protein foods that are often available in health care facilities or at home.

Offering a variety of flavors of shakes, malts, and smoothies can meet varying patient preferences. Dry milk powder, instant breakfast, a calorie enhancer, or protein powder can be added as well. Refer to the Fortified Supplement Recipes, Tips for Adding Protein, and Tips for Increasing Calories for recipe ideas and to help you identify useful food items available in your institution.

Think "Outside the Blender." Each facility may have opportunities to offer variety and add nutrients to the homemade shakes or snacks. After ensuring food safety procedures for leftovers are met, consider offering unserved desserts on a snack cart or mixing them into homemade shakes to enhance flavor. Include snack and shake choices for residents on puree-consistency diets. Some examples of desserts that could be repurposed include:

- Cooked/cooled pies (key lime, custard, Boston cream, fruit pie)
- Baked goods—eclairs, donuts, brownies and cookies
- Fruit cobblers/crisps
- Pancakes, French toast

and muffins

- Peanut butter or other nut butters
- Candy such as peanut butter cups and toffee bars

Overview

Patients may benefit from additional interventions in the form of supplementation to improve inadequate nutrient intake. Offering foods rich in nutrients to improve overall intake is beneficial, especially for older adults who have been shown to demonstrate positive responses to these strategies (Marra, 2009). Oral nutritional supplements can promote increased energy intake when incorporated with feeding assistance from staff (Simmons, 2015), which may result in greater energy intake and weight gain (Silver, 2009). The use of supplements to address malnutrition in health care settings has been shown to be effective (Lemmel Ricardi, 2013; Correia, 2014).

Commercial Supplements

Patients may prefer commercially available supplements because of their convenience. Commercial supplements may also be used as ingredients in homemade shakes. Various types of commercial supplements are available to increase overall nutritional intake, including:

- Liquids (protein, total energy)
- Powders (protein, energy)
- Disease specific formulations (diabetes, renal, ketogenic)
- Nutrient-dense formulations (2 kcal/mL formulas)
- Thickened liquid (puddings, frozen cups, custard products)

Supplement Choices for Patients Requiring Thickened Liquids

Patients requiring thickened liquids may not be allowed homemade supplements, depending on the ingredients. Recipes and products can be evaluated with input from the speech therapist. Identify liquid supplement choices safe for patients on thickened liquids. Refer also to the Fortified Food and Drink Recipes for additional choices to offer. See Texture Modification section.

Commercially produced supplement labels often identify the product thickness. Contact manufacturers with any questions regarding product thickness. Get input from speech therapists when introducing new products.

Supplementation Administration: Research indicates that for best acceptance and overall intake, supplementation should occur between meals rather than with meals (Silver, 2009). Patients may benefit from a combination of interventions that have been individualized to meet their needs. Consider developing a meal plan that incorporates snacks, supplements, and fortified foods into a weekly menu offering. Add different flavors to increase the variety and to minimize taste fatigue.

Vegetarian Diets

Definition: Vegetarian diets are based on the Dietary Guidelines for Americans and are intended as a guide for individuals who choose to follow a vegetarian eating pattern.

Indication: Vegetarian diets should be adopted by individuals who wish to reduce or eliminate their intake of animal products. A vegetarian diet can comprise any of the following types of eating patterns (based on a patient's preferences):

- Lacto-ovo-vegetarian: Includes milk and egg products
- Lacto-vegetarian: Includes milk products
- Vegan: Avoids all animal products
- Raw vegan: Diet of vegetables, fruits, nuts and seeds, legumes, and sprouted grains that are 75% to 100% uncooked (Melina, 2016)

Nutritional Adequacy: Comprehensively planned vegetarian diets meet the Dietary Reference Intakes (DRI) for most nutrients. Nutrients of concern may include protein, essential fatty acids, iron, iodine, vitamin D, and vitamin B12 (Melina, 2016).

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Whole grains and whole grain products with ingredients such as whole wheat, barley, rye, buckwheat, bulgur, corn, teff, oats, quinoa, millet, amaranth, brown and wild rice, sorghum, and oats;</p> <p>Choose grain products, such as bread, rolls, hot or cold breakfast cereals, crackers, and pasta made from whole grains</p>	Grain products not made from the recommended foods. Refined grains or ingredients with added saturated fat, sodium, or sugar.
	<p>Eggs and egg substitutes*</p> <p>Nuts and seeds, such as peanuts, almonds,</p>	

Protein Foods	<p>pistachios, and sunflower seeds, unsalted</p> <p>Nut and seed butters, such as peanut butter, almond butter, and sunflower seed butter</p> <p>Soy foods, such as tofu, tempeh, or soynuts</p> <p>Meat alternatives, such as veggie burgers, and sausages based on plant protein, reduced sodium</p> <p>Legumes, such as dried beans, lentils, or peas at least a few times per week in place of other protein sources</p>	<p>Beef, pork, lamb, poultry, fish, or seafood. Processed meats such as bacon, sausage, ham, pastrami, bologna, or salami.</p> <p>Canned legumes or beans that contain meat (such as ham)</p>
Dairy	<p>Low-fat or fat-free milk*, buttermilk*, evaporated skim milk*, powdered milk*, yogurt*, cottage cheese*, cheeses*, and ice cream*</p> <p>Sour cream* and cream cheese* made from low-fat milk.</p> <p>Fortified soymilk or nut milk</p> <p>Frozen desserts made from low-fat milk*</p>	Whole milk, cream

Vegetables	All fresh, frozen, and canned (unsalted) whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables; low-sodium vegetable juices	
Fruits	All fresh, frozen, canned and dried whole unsweetened fruits, canned fruit packed in water or fruit juice without added sugar 100% fruit juice	Fruits packed in syrup or made with added sugar
Oils	Unsaturated vegetable oils, including olive, peanut, flaxseed, and canola oils; margarines and spreads, which list liquid vegetable oil as the first ingredient and does not contain trans fats (partially hydrogenated oil). Low-fat salad dressing and mayonnaise made from unsaturated vegetable oils, dairy* or egg*	Butter* or lard* Solid margarine made with hydrogenated, partially hydrogenated oils, or trans fat
Beverages	Coffee, tea (unsweetened), water, 100% fruit juice	Sweetened beverages made from added sugars
Other	Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients	Foods that are prepared with or contain items from foods not recommended.

* Note: Those following a vegan diet will not include foods that appear with an asterisk. Those following a lacto-vegetarian diet or vegan diet will not include eggs.

Lacto-Ovo Vegetarian Sample 1 Day Menu

Meal	Menu
Breakfast	1 cup oatmeal 1/2 cup blueberries 1 ounce almonds 1 cup low-fat or fat-free milk
Lunch	2 slices whole wheat bread 2 ounces low-fat cheese slices 1/4 cup lettuce for sandwich 2 slices avocado for sandwich 1/2 cup fresh carrot sticks 1 banana 1 cup unsweetened tea
Dinner	1 whole wheat tortilla for burrito 1/2 cup refried vegetarian beans 1/4 cup chopped tomatoes for burrito 1/4 cup shredded cabbage for burrito 1/4 cup shredded cheese for burrito 1/4 cup salsa Spanish rice: 1/2 cup brown rice, 1/2 cup zucchini, 1/2 tablespoon olive oil 1 cup water
Snack	6 whole-grain crackers 1/2 cup apricots 1/2 oz unsalted peanuts 1/2 cup orange juice fortified with calcium/vitamin D

Nutrient Analysis

Vegetarian Nutrition Therapy

Vegan Sample 1-Day Menu

Meal	Menu
Breakfast	1 cup oatmeal 1/2 cup blueberries 1 ounce almonds 1 cup plain, fortified soymilk

Lunch	1 whole wheat tortilla for burrito 1/2 cup refried vegetarian beans 1/4 cup chopped tomatoes for burrito 1/4 cup shredded cabbage for burrito 1/4 cup shredded plant-based cheese 1/4 cup salsa Spanish Rice: 1/2 cup brown rice, 1/2 cup zucchini, 1/2 tablespoon olive oil 1 cup water
Dinner	2 ounces baked tofu, sliced 2 slices whole wheat bread 1/4 cup lettuce for sandwich 2 slices avocado for sandwich 1/2 cup fresh carrot sticks 1 banana 1 cup unsweetened tea
Snack	6 whole-grain crackers 1/2 cup dried apricots 1/2 oz unsalted peanuts 1/2 cup orange juice fortified with calcium/vitamin D

Nutrient Analysis

Vegetarian Nutrition Therapy

Kosher Diet

Definition: Jewish people who observe the rules of kosher follow specific dietary guidelines that fit into their religious beliefs. The foods on the kosher diet meet the regulations that are laid out by Jewish dietary law. These laws define appropriate techniques for animal slaughter, food preparation, and meal planning.

- **Meat and Poultry:** In the rules of kosher related to meat, the animal must have cloven hooves and chew its cud. Any animal (meat or poultry) must be slaughtered in a humane way based on Jewish dietary law. Any animal that died of natural causes, was killed by other animals, or has disease or flaws (like a missing limb) are not allowed for consumption. Even if an animal is allowed to be eaten, not all parts are allowed. Certain parts of animals that are close to the sciatic nerve and may contain blood (such as cuts for filet mignon) are not allowable. Animals must be slaughtered by a shokhet, a specially trained and "pious" man who is certified in the rules of Jewish dietary law. If an animal's meat is not allowed, neither are its organs, eggs, or milk. Rodents, reptiles, amphibians, and insects are all forbidden
- **Fish:** Acceptable fish must have fins and scales
- **Fruits and Vegetables:** All must be inspected for insects prior to consumption (insects are forbidden)
 - **Grapes:** Any food derived from grapes (wine, grape jelly, grape juice, candies) must be supervised from start to finish. Only these grape products can be certified as kosher.
- **Cheese:** Most cheese manufacturers use rennet, an enzyme used to harden cheese that is typically obtained from non-kosher animals. Cheeses must use kosher forms of rennet in order to be certified as kosher.
- **Separating Dairy and Meat:** Foods are divided into three categories, which in Yiddish are: fleishik (meat), milchik (dairy), and pareve (neutral). Pareve foods can be eaten with fleishik foods or milchik foods. However, milchik foods can never be combined with fleishik foods. Furthermore, a person must wait a certain amount of time between eating milchik and fleishik foods. Usually the time between eating fleishik to eating milchik varies between 3 to 6 hours (due to differing beliefs and practices). The time to wait between eating milchik and then eating fleishik is typically shorter; sometimes one only needs to rinse out their mouth. Again, the exact wait time depends on beliefs and opinions.
- **Kitchen Equipment:** Utensils and cookware must also be separated as

“for fleishik” and “for milchik.” The pots and pans used to prepare the food, plates and flatware used to eat the food, and dishwashers, sinks, and sponges used to clean the food also all need to be designated for either dairy or meats. kosher households will have two sets of dishes, flatware, utensils, pots, pans, and even dishwashers and sinks. Oftentimes, different color plates are used to indicate if it belongs to the milk or meat category (typically red for meat and blue for milk). If equipment designated for dairy comes in contact with meat, it is not considered kosher any longer. The equipment would then need to be replaced or be made kosher again by following specific practices set by kosher dietary law.

Indications: The kosher diet should be used for any patient upon request.

Nutritional Adequacy: This diet meets the Dietary Reference Intakes (DRIs) for macronutrients and micronutrients.

Foods Recommended/Not Recommended

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Whole grains including whole wheat, barley, rye, buckwheat, corn, teff, quinoa, millet, amaranth, brown and wild rice, sorghum, and oats;</p> <p>Grain products, such as bread, rolls, prepared breakfast cereals, crackers, and pasta made from whole grains</p>	<p>Breads and starches made with refined ingredients (white flour) and saturated fats, such as biscuits, frozen waffles, sweet breads, doughnuts, pastries, packaged baking mixes, pancakes, cakes, and cookies</p> <p>Grain products made with non-kosher ingredients or prohibited foods.</p>
	<p>Fresh or frozen kosher red meat*, including lean, trimmed cuts of beef, lamb, or venison</p> <p>Fresh or frozen kosher poultry, including skinless chicken, turkey, duck or goose, avoid processed</p>	

Protein Foods (fleishik)	meats that are higher in sodium	
	Fresh, frozen, or canned kosher fish** (with scales and a fin)	
	Eggs and egg substitutes	Non-kosher meats or parts, or prohibited cuts of meat such as filet mignon.
	Nuts and seeds, such as peanuts, almonds, pistachios, and sunflower seeds.	All pork or foods containing pork ingredients.
	Kosher nut and seed butters, such as peanut butter, almond butter, and sunflower seed butter.	Seafood or fish without scales and a fin
	Kosher soy foods, such as tofu, tempeh, or soynuts	
	Kosher meat alternatives, such as veggie burgers, and sausages based on plant protein.	
	Kosher legumes, such as dried beans, lentils, or peas	
	*Milk and meat cannot be served at the same meal or on the same dishware or silverware.	
	** Fish cannot be served on the same plate or during the same course as meat. It can, however, be served at the same meal.	

Dairy (milchik)	<p>Low-fat or fat-free milk*, yogurt, cottage cheese,</p> <p>kosher cheeses made from kosher rennet</p> <p>Frozen desserts made from low-fat milk</p> <p>Fortified soymilk</p> <p>*Milk and meat cannot be served at the same meal or on the same dishware or silverware.</p>	<p>Whole milk, cream, cheeses made from whole milk, cream cheese, sour cream</p> <p>Yogurt or ice cream made from whole milk or with added sugar</p> <p>Cheese made from non-kosher rennet</p>
Vegetables	<p>All fresh, frozen, and canned insect-free whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables; low-sodium vegetable juices</p> <p>*Must be inspected for insects prior to consumption</p>	Any vegetable with insects
Fruits	<p>A variety of fresh, frozen, canned and dried whole unsweetened fruits, canned fruit packed in water or fruit juice without added sugar</p> <p>Grape products that have been certified as kosher (wine, grape jelly, grape</p>	<p>Fruits packed in syrup or made with added sugar</p> <p>Grape products that have not been certified as kosher</p>

	juice, candies)	
	100% fruit juice (½ cup)	
Oils	<p>Unsaturated vegetable oils, including olive, peanut, and canola oils; margarines and spreads, which list liquid vegetable oil as the first ingredient and does not contain trans fats (partially hydrogenated oil); salad dressing and mayonnaise made from unsaturated vegetable oils</p> <p>Butter*</p> <p>*Butter must be substituted with margarine in meals where meat is served</p>	<p>Lard</p> <p>Solid shortening or partially hydrogenated oils</p> <p>Solid margarine made with hydrogenated or partially hydrogenated oils</p> <p>Margarine that contains trans fats; butter*</p> <p>*Butter must be substituted with margarine in meals where meat is served</p>
Beverages	Coffee, tea (unsweetened), water, 100% fruit juice	Non-kosher certified grape juice
Other	Kosher prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients	<p>Non-kosher certified foods or foods made from prohibited ingredients.</p> <p>Foods that are prepared with or contain items from not recommended foods.</p>

Kosher Sample 1-Day Menu

Meal	Menu
Breakfast	1 cup whole grain cereal 1 medium banana 1 cup fat-free (skim) or low-fat (1%) milk Coffee/tea with low-fat milk and sugar if desired
Morning Snack	1 cup low-fat yogurt 2 tablespoons granola
Lunch	2 ounces kosher turkey breast 2 slices whole wheat bread (pareve, milk free) Lettuce, for sandwich Tomato slice, for sandwich 1 apple
Afternoon Snack	1/4 cup hummus Raw sliced carrots, cucumber, and bell pepper
Dinner	3 ounces grilled chicken breast ½ cup steamed broccoli 1 baked sweet potato (milk-free margarine if desired) 1 tossed salad 2 tablespoons vinegar and oil salad dressing 1 cup fruit cocktail

Menu Nutrient Analysis
Kosher Dietary Guidelines

Halal Diet

Definition: Muslims may follow specific dietary guidelines that fit into their religious beliefs. The foods on the halal diet meet the regulations that are laid out by Islamic dietary law. These laws define permitted (halal) and prohibited (haram) foods as well as food preparation practices. If it cannot be determined if a food is halal or haram, that food, called mashbooh, is forbidden. Slaughtering must be completed by a Muslim familiar with Islamic slaughtering practices, in accordance with Islamic law. Notable foods common in North America that are considered unlawful on the halal diet include (FAO, 2017):

- Animal foods: pigs, boars, frogs, poisonous aquatic animals, blood
- Plant foods: hazardous plants except those where toxin can be destroyed during processing
- Beverages: alcohol
- Food Additives: derived from prohibited animal foods, plant foods, or alcohol

Indications: The halal diet should be used for any patient upon request.

Nutritional Adequacy: This diet has meets the Dietary Reference Intakes (DRIs) for macronutrients and micronutrients.

Food Group	Foods Recommended	Foods Not Recommended
Grains	Whole grains including whole wheat, barley, rye, buckwheat, corn, teff, quinoa, millet, amaranth, brown and wild rice, sorghum, and oats;	<p>Breads and starches made with refined ingredients (white flour) and saturated fats, such as biscuits, frozen waffles, sweet breads, doughnuts, pastries, packaged baking mixes, pancakes, cakes, and cookies</p> <p>Grains made with mashbooh ingredients such as:</p> <p>Bread with lecithin or monoglycerides/diglycerides</p> <p>Bagels with cysteine hydrochloride, enzymes, folic acid, and niacin</p>

	<p>Choose grain products, such as bread, rolls, prepared breakfast cereals, crackers, and pasta made from whole grains</p>	<p>Cake with artificial/natural flavors or monoglycerides/diglycerides</p> <p>Cereal with artificial/natural flavors, vitamins A, B12, C, or D</p> <p>Cookies with folic acid or thiamine</p> <p>Granola bars with added flavorings</p> <p>Donuts or pastries with monoglycerides/diglycerides, added flavoring</p>
	<p>Halal-certified (zhabiha) fresh or frozen red meat, including lean, trimmed cuts of beef or lamb</p> <p>Halal-certified (zhabiha) fresh or frozen poultry, including skinless chicken or turkey</p> <p>Fresh, frozen, or canned seafood, including fish (salmon, herring, and sardines), shrimp, lobster, clams, and scallops</p>	<p>Pork bacon lard hydrolyzed</p>

Protein Foods	Eggs and egg substitutes	lard, bacon, tallow, hydrolyzed porcine collagen, gelatin, animal shortening, hydrolyzed animal protein (from pig), rennet
	Nuts and seeds, such as peanuts, almonds, pistachios, and sunflower seeds, unsalted	Non-halal certified* (zhabiha) red meat, poultry, fish, or seafood. Tallow
	Nut and seed butters, such as peanut butter, almond butter, and sunflower seed butter, reduced sodium.	*Level of strictness to halal-certification adherence varies among Muslims
	Soy foods, such as tofu, tempeh, or soynuts	
	Meat alternatives, such as veggie burgers, and sausages based on plant protein, reduced sodium	
	Legumes, such as dried beans, lentils, or peas at least a few times per week in place of other protein sources, unsalted	

Dairy	<p>Halal low-fat or fat-free milk, yogurt</p> <p>Halal cheeses made without rennet enzymes</p> <p>Halal frozen desserts made from low-fat milk</p> <p>Fortified soymilk</p>	<p>Cheeses or cheese products made with rennet derived from pig sources</p> <p>Dairy foods made from mashbooh ingredients such as:</p> <p>Coffee creamer with natural/artificial flavors or monoglycerides/diglycerides</p> <p>Cheese with enzymes</p> <p>Ice cream with whey, artificial flavor, or monoglycerides/diglycerides</p> <p>Pudding with gelatin or artificial/natural flavors</p> <p>Yogurt with flavors, gelatin, or whey</p>
Vegetables	<p>A variety of fresh, frozen, and canned (unsalted) whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables; low-sodium vegetable juices</p>	<p>Vegetables prepared with haram ingredients</p>
	<p>A variety of fresh, frozen, canned and dried whole unsweetened</p>	<p>Fruits packed in syrup or made with added sugar</p>

Fruits	<p>fruits, canned fruit packed in water or fruit juice without added sugar</p> <p>100% fruit juice (½ cup) limited to one serving per day</p>	<p>Fruits prepared with haram ingredients</p> <p>Fruits or fruit desserts prepared with mashbooh ingredients: gelatin of pig origin</p>
Oils	<p>Unsaturated vegetable oils, including olive, peanut, and canola oils; margarines and spreads, which list liquid vegetable oil as the first ingredient and does not contain trans fats (partially hydrogenated oil); salad dressing and mayonnaise made from unsaturated vegetable oils</p>	<p>Solid shortening or partially hydrogenated oils</p> <p>Solid margarine made with hydrogenated or partially hydrogenated oils</p> <p>Margarine that contains trans fats; butter</p> <p>Fats and oils with mashbooh ingredients: fatty acids or fatty acid esters, hydrolyzed bovine collagen, Gelatin of pig origin or artificial/natural flavors</p>
Beverages	<p>Coffee, tea (unsweetened), water, 100% fruit juice</p>	<p>Alcohol including wine, vodka, rum, liquor, beer, gin</p> <p>Foods made with alcohol as an ingredient such as wine sauces, flavor extracts (vanilla, etc), or ethyl alcohol</p>
		<p>Artificial coloring/flavoring</p> <p>Enzymes</p> <p>Extracts (such as vanilla)</p>

Other	<p>Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients</p> <p>Gelatin from fish origin</p>	<p>Fatty acids or fatty acid esters</p> <p>Gelatin (of pork origin), rennet (of pork origin)</p> <p>Glycerin, Glycerides (monoglycerides and diglycerides)</p> <p>Gum base</p> <p>Hydrolyzed bovine collagen</p> <p>Phospholipids</p> <p>Polysorbates</p> <p>Sodium lauryl sulfate</p> <p>Stearates (glycerol, magnesium, potassium, and sodium; stearic acid, sorbitan monostearate, propylene glycol monostearate)</p> <p>Tallow</p>
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Halal Sample 1-Day Menu

Meal	Menu
Breakfast	<p>1 cup oatmeal</p> <p>½ cup blueberries</p> <p>1 ounce almonds</p> <p>1 cup low-fat or fat-free milk</p>
Lunch	<p>3 ounces halal turkey slices</p> <p>2 slices whole wheat bread</p> <p>1/4 cup lettuce for sandwich</p> <p>2 slices tomato for sandwich</p> <p>½ cup fresh carrot sticks</p> <p>1/4 cup hummus</p> <p>1 banana</p> <p>1 cup unsweetened tea</p>

Dinner	3-ounce baked salmon with basil ½ cup brown rice 1 cup green beans 1 cup mixed greens salad with 1 tablespoon olive oil 1 whole wheat dinner roll 1 teaspoon margarine (for roll)
Snack	1 cup low-fat, plain yogurt with ½ cup sliced peaches

Finger Foods

Some patients may be able to feed themselves, eat adequately, and be more independent if they are able to use their fingers to pick up foods. Utensils may become harder to use for some patients depending on their condition and/or age. Allowing patients to be as independent as possible during mealtime may improve their nutritional intake. Most foods can be eaten without utensils, but this requires creativity and planning.

Tips for Adjusting a Meal Plan to Promote Self-Eating Skills:

- Provide cereals with milk and soups in a mug
- Serve condiments, gravies, and sauces in soufflé cup on plate for dipping per patient's eating preference and for adding moisture to drier foods
 - Serve hummus, blue cheese dressing, and other nutrient-dense dipping sauces
 - Add dipping sauce, gravy, and condiments even if not on planned menu
- Serve each part of the meal in individual bowls or mugs, making it easier for patients to hold the food closer to their mouth and require less distance for the utensil to travel
 - Example: serve macaroni and cheese, cooked vegetable, soup, and dessert in separate mugs at the same meal
 - Consider serving meals using paper products (as they are much lighter in weight) if it safely improves eating skills
- Work with occupational therapy staff to identify adaptive feeding devices including cups, utensils, specialized plates, and bowls that would be appropriate in your facility.
- Consider spillage concerns. Use covers, straws, cups, or other adaptive devices to decrease spillage.
- Serve thicker items (including puréed items) in an ice cream cone; this type of feeding will require constant supervision.
- Where possible, cut foods, including sandwiches, into quarters; for sandwiches, this may reduce the amount of filling that is normally served.

List of Finger Foods for Each Meal Category

Suggested Finger Foods by Meal

Breakfast:

Lunch/Dinner:

<ul style="list-style-type: none"> • Hard-boiled eggs • Omelet, served like a burrito (rolled) • Quiche • Egg muffin • Egg sandwich • French toast, pancakes, waffles served with syrup on side for dipping • Bacon, ham, sausage • Muffins, bagels, donuts and pastries • Cold cereal with extra-large pieces, served with side of milk • Cold cereal, served in mug • Hot cereal, served in mug 	<hr/> <ul style="list-style-type: none"> • Soup, served in mug • Crackers with cheese or peanut butter • Meat slices or cubes • Entrée served in bread or rolls • Grilled cheese sandwich • Hamburger • Hot dog • Chicken legs, thighs, wings, breasts served with dipping sauce • Desserts served in ice cream cones, mugs, or cups
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List of Finger Foods by Category:

Vegetable Finger Foods	
Raw	Baby carrots, broccoli, cauliflower, cucumber spears, red and green peppers, zucchini, cherry tomatoes (cut to size required per diet order), pea pods
Cooked crisp (large pieces)	Vegetables selected per patient preference and texture tolerance Green beans; broccoli, carrots, corn on the cob, zucchini, butternut squash (chunks)

Cooked and drained	Serve in bite-sized pieces that can be picked up: Asparagus, baby carrots, carrot coins, green beans, broccoli, cauliflower, eggplant
Vegetable juice	Tomato juice (regular or low sodium), vegetable juice (regular or low sodium)

Fruit Finger Foods	
Raw	Any fresh fruits, cut in small pieces (individualize for texture) Avocado slices (appropriate for most texture-modified diets)
Canned	Drained peaches, pears, fruit cocktail, pineapple, and apricots (cut if patient requires)

Starch Finger Foods	
Bread	Most breads, rolls, bread sticks, biscuits, muffins, toast, bagels, English muffins, tortilla, pita bread, and sandwich wraps
Potato	Wedges, french fries, potato tots/puffs, hash browns, home fries, baked potato (cut into pieces), baked sweet potato (cut into pieces), knishes
Rice	Rice balls, rice cakes, risotto served in a mug (more moist and sticks together)
Pasta	Ziti, ravioli, tortellini, spirals; serve sauce on side for dipping
Cereal	Cold cereals that are easy to pick up with fingers, served without milk

Entrée/Protein Finger Foods	
Eggs	Hard-boiled eggs, cut in quarters; fried egg in sandwich; scrambled egg in wrap; omelets cut in pieces; crepes cut in pieces; quiche, egg strata
Cheese	Cheese chunks; shakes and frappes; yogurt in container; sandwiches (cut in quarters); quesadillas; mozzarella sticks, fried or regular cheese sticks
Fish and Poultry	Chicken and fish nuggets/patties/tenders (sauce on side); chicken croquettes; fish sticks, fish cakes, salmon burger; fried fish/shrimp; turkey burger; chicken legs/thighs/wings (supervised due to bones); strips or chunks of baked chicken or turkey; sliced chicken or turkey cold cuts.
Meat	Salisbury steak, tender beef/pork/ ham/ lamb, lunchmeat (cold cuts), corned beef, hot dogs, sausage/onions, pizza, meatballs, pigs in a blanket
Vegetarian	Veggie burger; cheese pizza; cheese quesadilla; peanut butter sandwich; seasoned tofu chunks, tempeh, seitan

Snack and Dessert Finger Foods	
Sweets	Cookies, cookie bars, brownies, pastries, small or mini cupcakes or muffins (paper removed), moist cakes/frosting cut in chunks or small slices, donut holes, mini flavored bagels
	Pie or pie filling in ice cream cone, ice cream bars, popsicles, gelatin bars, pudding pops, gelatin cubes
	Tarts, eclairs, donuts, danish, turnovers
	Bread pudding, cooled and cut in chunks
	Granola bars, flavored rice cakes and mini rice cakes, rice

	<p>cakes with butter/jelly</p> <p>Cream cheese/jelly mini sandwiches, date/banana/other types of breads with or without cream cheese/butter</p>
Salty snacks	<p>Chips, cheese curls/puffs, potato sticks, pretzels, crackers, popcorn, nuts, cubed cheese, cheese sticks, pickle spears/pickle chips and olives (drained well); pigs in a blanket</p>

Finger Foods Nutrition Therapy

IDDSI Levels

The International Dysphagia Diet Standardization Initiative (IDDSI) was established to provide a global approach to consistent diet terminology and definitions for dysphagia diet therapy in all settings and for all cultures (IDDSI, 2017). Transitioning to the standardized terminology and definitions used in the international community will allow for consistent communication among health professionals, care providers, researchers, and industry partners to improve quality of care and safety for patients across the world. The transition to the IDDSI framework is ongoing and in different stages throughout the United States. In order to provide consistent international dysphagia care and further advance dysphagia research internationally, it is critical that clinicians use the same terms, definitions, and measurable characteristics for each diet or liquid texture. The Nutrition Care Process Terminology was updated in 2017 to include the IDDSI terminology in an effort to facilitate adoption and documentation. With improving patient safety as its goal, the IDDSI also intends to pave the way for future international research on dysphagia (Cichero, 2017).

Evaluating and Confirming Texture-Modified Diet Orders

There are two parts to every diet order: Texture component and therapeutic component. The texture component includes both solid and liquid textures. The therapeutic component modifies the diet for specific medical needs.

Examples:

- House/Regular Thin
- House Soft and Bite Sized Level 6
Mildly Thick Level 2

Patients who require change in the consistency or texture of foods/fluids require an individualized and interdisciplinary approach whereby patients are assessed by the speech-language pathologist (SLP), registered dietitian nutritionist (RDN), and medical team. The SLP will help determine which diet texture will best meet the patient's physical ability to consume food safely and presents the lowest risk for aspiration. The RDN is responsible for implementing a balanced nutrition plan that meets the consistency specifications outlined by the SLP. Often the entire health care team (including physicians and nurses) is involved in monitoring for difficulties related to chew/swallow; in reporting concerns per facility policy; monitoring diet texture effectiveness, adherence, understanding; and evaluating patient educational needs.

Consider the following in determining the most appropriate textures and diet order for the patient

_with chewing or swallowing difficulties.

- **Determine why the diet is ordered.** Chewing difficulties or avoidance of some foods may indicate a safety and swallow concern. Consult the medical record and the health care team including the SLP. Consider:
 - Is there a temporary chew impairment related to recent dental work?
 - Are there only a few types of foods the patient needs to avoid, like raw vegetables, salads, or tough meats?
 - Is there an impaired swallow issue?
 - Is there an impaired chew ability affecting swallow function?
 - Does the referring doctor or facility indicate dysphagia, swallow concerns, or recent need for speech therapy?
- **Investigate “bland”, “GI soft” or “soft” diet orders.** These diet orders could be intended to provide easy-to-digest foods/fluids and should be evaluated for appropriateness based on the chewing or swallowing disorder or patient's food preference. Bland orders are considered obsolete diets and the RDN can assess for change to a House/Regular diet, and individualize per patient tolerance.

- **Determine intention of “cut up” diets.** Sometimes the term “cut-up” is used interchangeably for diets need to be prepared for ease of self eating skills or for general food safety/pacing concerns. Cut-up diets should not be ordered for patients with chewing difficulties related to limited dentition or fatigue. One of the greatest risks for choking is insufficient or impaired dentition, which has been confirmed by autopsy studies (Cichero, 2015

; Wick, 2006; Berzlanovich, 2005). Consider an SLP assessment particularly if there is an overlying neurological or cognitive issue (Cichero, 2015; Berreton-Felix, 2009; Okamoto, 2006). Clarify these diet orders per facility diet names and definitions.

As for all diets in health care settings, texture-modified diets (mechanically altered diets) should be at the most liberal level tolerated and should be frequently reassessed for potential adjustments/advancements (Pioneer network, 2011 ; MQii, 2017).



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Be aware of IDDSI use of framework and attribution requests.

See IDDSI Framework for the following important resources:

IDDSI Framework + Detailed Definitions
Testing Methods
Evidence Statement
Frequently Asked Questions

Key Components of IDDSI Framework Food and Drink Consistencies

The IDDSI is an evidenced-based dysphagia diet framework. It has 8 Levels (0-7), which are identified by numbers, text labels, and colors. Level 7 Regular and Level 0 thin are not texture-modified diets, as they do not restrict texture nor liquid thickness.

The IDDSI evaluates foods and fluids according to the following characteristics:

- Food pieces and shape
- Food texture: Softness, tenderness, and mashability
- Food moisture, such as hardness and dryness
- Food and menu items with dual textures: liquid must not separate from solid
- Liquid thickness

Mixed-Consistency Foods, Complex Foods and Transitional Foods

Mixed-Consistency Foods

Mixed-consistency foods can separate into two components: liquid and solid food. Examples of these foods are soups, stews, and cold cereal with milk. Watermelon is also a mixed-consistency food since the liquid and solid separate once it enters the mouth.

Mixed consistency foods are much more challenging for a patient to eat because they require more skill to process and swallow safely. The individual may swallow the liquid component with poor control. The solid components may be swallowed before they are properly chewed into a safe bolus. Mixed consistency foods are allowed on IDDSI Level 7 Regular and Level 7 Easy to Chew if a clinician has deemed them safe for the individual. They are not allowed in the IDDSI Framework for any patients on IDDSI Levels 1-6.

Use IDDSI testing methods to test both the liquid and the solid part. Determine if the item must be avoided or if the recipe can be modified to ultimately pass IDDSI testing.

The statements listed below are used in the IDDSI Framework to describe some mixed consistency foods that are safe to serve. If a food item does NOT behave this way, (liquid DOES separates from solid), modification is required before serving safely.

- No separate thin liquid
- Liquid must not separate from solid
- No thin liquid should drain from food
- Sauce must not separate from food/solid part

Listed below are modifications to mixed consistency foods described in the IDDSI Framework as guidance to assure the item is safe:

- Serve in mildly, moderately or extremely thick sauce AND drain excess liquid
- Drain excess milk, liquid or juice
- Thicken to thickness level recommended by clinician
- Liquid portion must be thick per clinician recommendation
- Assess individual ability to manage fruit with high water content (ex watermelon) where juice separates from solid in the mouth during chewing

As always, IDDSI emphasizes testing to confirm the level of the food item. Additionally, consider the patient's abilities along with clinician evaluation to determine the safest foods and liquids to serve.

Complex Foods

A complex food texture requires a patient to be able to chew and move different food textures in one mouthful. This task can be challenging and

increases the risk for choking. Menu items that may be considered as a complex food texture include pizza, spaghetti and meatballs, sandwiches, hamburgers, and hot dogs. More information is available in the Food Textures That Pose A Choking Risk section in the IDDSI Framework document.

Transitional Foods

Transitional foods start as one texture and change to another texture in the mouth. This effect can happen when moisture is added to the food or if there is a significant temperature change that modifies the food consistency, such as melting or heating.

Transitional foods require minimal chewing and can be broken down by tongue pressure after changes in moisture or temperature occur. Transitional foods are often used for developmental teaching or for swallowing rehabilitation. These transitional foods are allowed on IDDSI Levels 5, 6, 7 Easy to Chew and 7 Regular but only if assessed as safe by a clinician. Use IDDSI testing methods for transitional foods to confirm the food is safe for the individual.

Test by:

1. Take a 15 mm x 15 mm sample size, which is about the size of a thumbnail
2. Add 1 mL of water and wait 1 minute
3. Use fork to apply pressure until the thumbnail turns white
4. Evaluate results: It is a transitional food if the following are true:
 - The sample has been squashed
 - The sample does not return to its original shape
 - The sample has melted (as in the case of ice chips)

Classification for Ice Cream and Gelatin

Ice cream Ice cream is considered a transitional food, but it also has mixed consistency characteristics. As the ice cream stays in the mouth, depending on time and the product composition, liquid and solid components may become separated.

Determine the appropriateness of serving ice cream products by allowing them to melt down to room temperature and then conduct syringe testing, fork drip testing, and spoon tilt testing to evaluate if safe for an individual. As always, clinical assessment is key to determine which foods are safe.

Gelatin Gelatin has long been considered a difficult food product for individuals with swallowing issues. Gelatin-based jelly is also a concern because it can melt quickly in the mouth. Gelatin breaks apart in the mouth, becoming harder to control in the mouth before swallowing. Gelatin also presents the additional safety risk of breaking apart in clumps that can be swallowed whole.

Thickeners may improve the safety of ice cream, jelly, and gelatin. There are also pre-thickened ice cream and gelatin products available for purchase. Use IDDSI testing methods to evaluate any of these products.

Key Components of IDDSI Framework Food and Drink Consistencies

The IDDSI is an evidenced-based dysphagia diet framework. It has 8 Levels (0-7), which are identified by numbers, text labels, and colors. Level 7 Regular and Level 0 thin are not texture-modified diets, as they do not restrict texture nor liquid thickness.

The IDDSI evaluates foods and fluids according to the following characteristics:

- Food pieces and shape
- Food texture: Softness, tenderness, and mashability
- Food moisture, such as hardness and dryness
- Food and menu items with dual textures: liquid must not separate from solid
- Liquid thickness

Transitioning Texture-Modified Diet Terminology and Definitions to the IDDSI Framework

Transitioning from prescribing the National Dysphagia Diet (NDD) and other texture-modified diets to prescribing the International Dysphagia Diet Standardisation Initiative (IDDSI) levels requires careful planning. Using the IDDSI implementation resources on the IDDSI website will help you design your transition plan.

Part of the IDDSI implementation process is to customize your diet manual to your institution which can be done by following the process outlined in the Diet Manual Implementation section. The NCM Diet Manual Crosswalk clarifies any differences between the diet name terminology used by your institution and the NCM Diet Manual Reference names. The NCM Diet Order Terminology and Definitions document provides descriptions of the NCM Diet Manual diets that are offered.

Transitioning texture-modified diets to the IDDSI framework can be completed in stages or all at once depending on staff competency, policies and procedures, and individual readiness. However, it is recommended that institutions use a continuous improvement process approach during the implementation process. This approach may include adapting recipes, menus, and diet spreadsheets to the new framework.

Learn about the IDDSI framework, terms, and definitions.

At IDDSI.org, you can do the following:

- Review the Complete IDDSI Framework + Detailed Definitions
- Learn about IDDSI Testing Methods, Subscribe to IDDSI's YouTube Channel to view IDDSI testing method videos.
- Examine the numerous free resources available under the Resources section:
 - Printable posters
 - Presentations
 - Publications
 - Videos and webinars
- Read IDDSI Frequently Asked Questions
- Sign up for the free monthly newsletter, "E-Bites"
- Link to an app store to download the free IDDSI app

Review current texture-modified diet terminology and definitions at your facility and compare to IDDSI

- With other members of the health care team, particularly the speech-language pathologist, review the diet names and definitions of the texture-modified diets and thickened liquids that are used at your health care facility.
- Compare current diet terminology and definitions to the IDDSI framework using the following references: Mapping NDD Diets to IDDSI Diets and Summary of Texture-Modified Diets.
- Document and track your decisions by using the NCM Crosswalk, adjusting menus, recipes and diet spreadsheets.

Mapping NDD Diets to IDDSI Levels

The IDDSI has established eight levels of food and liquid consistencies. Detailed descriptions are available in the Complete IDDSI Framework + Detailed Definitions. Each NDD diet name and definition is somewhat comparable to an IDDSI level, though there are differences. During the mapping process—that is, identifying an IDDSI level comparable to an NDD diet — practitioners evaluate diet names, allowable textures, and foods currently served and then connect it to an IDDSI level that reflects similar expectations.

Neither IDDSI Level 7 Regular (Black) nor IDDSI Level 0 Thin (White) are texture-modified diets. There are no restrictions on foods for Level 7 Regular nor liquids for Level 0 Thin. IDDSI Level 7 Easy to Chew (Black), a subcategory of Level 7, is a texture-modified diet that is used when a patient has mild chewing concerns and is not for patients with swallowing issues. Details regarding IDDSI Level 7, Easy to Chew through Level 1 are shown below adjacent to its similar (but not exact) NDD level counterpart.

NDD Diet Name	Similar to IDDSI Level
NDD Level 3: Advanced	Level 7 Easy to Chew
NDD Level 3: Advanced	Level 6 Soft & Bite-Sized: Adults, 15 mm x 15 mm* food particle size Pediatrics, 8 mm x 8 mm* food particle size

NDD Level 2: Mechanically altered	Level 5 Minced & Moist: Adults, 4 mm x 4 mm* food particle size Pediatrics, 2 mm x 2 mm* food particle size
NDD Level 1: Pureed	Level 4 Pureed Foods
Pudding or Spoon Thick	Level 4 Extremely Thick Drinks
Honey Thick Liquid	Level 3 Liquidized Foods
	Level 3 Moderately Thick Drinks
Nectar Thick Liquid	Level 2 Mildly Thick
No NDD Level	Level 1 Slightly Thick

* Note that Level 6 Soft & Bite-Sized and Level 5 Minced & Moist assign different particle sizes for pediatric patients. For details on the Level 6 Soft & Bite-Sized and Level 5 Minced & Moist IDDSI levels for pediatric patients, review the IDDSI framework.

Comparison of NDD and IDDSI Levels

The differences between NDD and IDDSI levels are outlined as follows. Your institution's texture modified diet may be different than what it listed for the NDD diet. Focus on the food characteristics and the patients' abilities to determine where your current texture diets align with IDDSI.

NDD		IDDSI	
		Level 7 Regular (Black)	Normal everyday foods of various textures. No restrictions. This is not a texture-modified diet.
Dysphagia Level 3: Advanced or Mechanical Soft (Components of NDD Level 3)	No hard, sticky or crunchy foods. Foods should be moist. Mixed-consistency foods are allowed if	Level 7 Easy to Chew (Black)	Soft, tender moist foods. Avoid hard, tough, stringy or crunchy foods. There are no food

<p>STANDARD LEVELS align with Level 7 Easy to Chew and Level 6 Soft & Bite-Sized)</p>	<p>tolerated and should be assessed by clinician.</p> <p>Food particles are served in bite-sized pieces (less than 1 inch).</p> <p>Meats are cut up, chopped or ground (moist).</p> <p>Crusty dry breads not allowed.</p> <p>Most other moist breads and bread products allowed.</p> <p>Salad, raw vegetables, and most fresh fruit not allowed.</p> <p>Adequate dentition and chewing ability expected.</p>	<p>Level 6 Soft & Bite-Sized (Blue)</p>	<p>size restrictions but may benefit from foods cut up at service.</p> <p>Soft Bread and mixed consistency allowed if assessed by clinician.</p> <p>Casseroles/stews: Serve foods in mildly, moderately or extremely thick sauce (per liquid diet order) and drain excess liquids.</p> <p>Should be able to bit off food and chew without tiring easily.</p> <p>Soft, tender, moist foods; no mixed consistency; Foods should have a particle size no greater than 15 mm length by 15 mm width for adults or 8 mm length by 8 mm width for pediatrics.</p> <p>Bread is not allowed unless pureed or gelled throughout. Rice, couscous, and quinoa if suspended in sauce/liquid and does not separate in individual grains.</p> <p>Casseroles/stews: Serve foods in mildly, moderately or extremely thick</p>
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			<p>sauce (per liquid diet order) and drain excess liquids.</p> <p>Some chewing ability is required and tongue force to move food for oral processing is expected.</p>
<p>Dysphagia level 2: Mechanically Altered or Ground</p>	<p>Foods should be moist, of soft-texture and can be formed into a bolus easily.</p> <p>Meats are ground then softened and moistened by using gravies and sauces (served no larger than ¼ inch pieces).</p> <p>Vegetables and fruits are soft cooked, and bite sized (served no larger than ¼ inch pieces).</p> <p>Soft breads, grains and cereals, well moistened, blended, chopped or ground. Slurred or pureed bread/grain products are often used.</p> <p>Desserts softened with milk or liquid. Pureed rice.</p> <p>Avoid large chunks of foods or foods too hard to chew thoroughly, including raw</p>	<p>Level 5 Minced & Moist (Orange)</p>	<p>Minced, soft and moist foods; can be scooped and shaped (e.g., into a ball shape and easily mashed by fork. No mixed consistency. Food pieces with particle size no greater than 4 mm wide by 15 mm long for adults or 2 mm wide by 8 mm long for pediatrics.</p> <p>Most foods are served in mildly, moderately or extremely thick sauce (per liquid diet order) and drain excess liquids</p> <p>Bread is not allowed unless pureed or gelled throughout. Rice, couscous, and quinoa if suspended in sauce/liquid and does not separate in individual grains. Foods require minimal chewing and tongue force to move bolus and to separate the</p>

	<p>vegetables, most fresh fruits, uncooked dried fruits, sticky, gummy, stringy, crunchy, dry, crisp or coarse foods.</p> <p>Some chewing required and tolerance of mixed textures should be assessed.</p>		particles. Biting is not required.
Dysphagia Level 1: Pureed	<p>All foods are pureed, blended, or strained for a smooth consistency with no lumps.</p> <p>Some softened desserts and bread items allowed if gelled throughout.</p> <p>Soups, casseroles should be pureed and strained.</p> <p>Foods that require chewing or a bolus formation not allowed.</p>	Level 4 Pureed Food (Green)	<p>Smooth, lump free; not firm or sticky; does not require chewing or bolus formation. Falls off spoon as intact spoonful and holds shape. No mixed consistency. For liquids at this level: cannot be poured or drunk from a cup; nor sucked through a straw.</p> <p>No chewing or biting required nor ability to form bolus.</p>

Comparison of Thickened Liquids

NDD		IDDSI	
Pudding Thick Liquids	<p>All thickened liquid diets provide pureed, strained soups and fortified ice cream product (thick at room</p>	Level 4 Extremely Thick liquids/drinks (Green)	<p>Liquids at this level: cannot be poured or drunk from a cup; nor sucked through a straw. Smooth, lump free and there is no mixed consistency.</p>

Honey Thick Liquids	(thick at room temperature) instead of regular soup or ice cream offerings. Liquids should meet liquid consistency specifications, which may require use of thickening products. Avoid gelatin, some fruits with high water content.	Level 3 Liquidized food (Yellow) and Level 3 Moderately Thick liquids/drinks (Yellow)	Smooth foods and fluids without lumps; cannot be molded on plate; requires no chewing or oral processing and can be directly swallowed. Drips slowly through slots of fork. Requires some effort to suck through straw
Nectar Thick Liquids	Some mixed-consistency items require thickening.	Level 2 Mildly Thick (Pink)	Liquids that require effort to be sipped through straw; flows off a spoon at a slower rate than thin liquid.
No NDD level		Level 1 Slightly Thick (Grey)	Liquids thicker than water, flows through straw or syringe
No NDD level		Level 0 Thin (White)	Flows like water. Fast flow. No restrictions. This is not a texture-modified diet.

Identify required modifications during IDDSI transition

Potential modifications required when transitioning to the IDDSI diet include the following:

- Terminology
- Diet definitions
- Forms and technologies (such as electronic medical records, diet office software, order sets, etc.) using NDD terminology
- Abbreviations for diet/menu tickets
- See IDDSI Abbreviations
- Policies and procedures including updating the diet manual
- Recipes, menu items, and diet spreadsheets
- Thickening products purchased and facility-specific thickened product recipes

Review and test current texture-modified recipes and menu items at your facility

- Use the IDDSI Testing Methods and audit sheets to evaluate recipes and menu items
- Compare existing recipes and menu items with IDDSI definitions to identify differences
 - Determine which recipes and menu items are safe to serve at each IDDSI Level
- Re-create recipes that do not meet IDDSI specifications and test again
- Use the NCM Diet Manual section “Using IDDSI Testing Methods” for food and fluid texture descriptions and testing methods
 - Subscribe to IDDSI’s YouTube Channel to view IDDSI testing method videos.
 - Practice each technique with a syringe or utensil for a visual, hands-on learning experience.

Consider your facility’s needs when purchasing products

It is important to thicken foods, drinks, and liquids to meet IDDSI specifications. Pre-thickened products and powder/liquid/gel thickeners are available. Consider your facility’s needs when purchasing products.

- IDDSI language used on product labels
- Preferred packaging of the thickener: bulk or single serve
- Product ingredients used could vary:
 - Modified food starch (eg corn)
 - Gums (eg xanthan, gellan, guar, etc.)
- Products that accommodate food allergies
- Possibility of additional carbohydrates, which can affect blood glucose
- Time and temperature, which may affect product viscosity
- Ease of mixing

After initially confirming appropriateness of IDDSI classification of foods and liquids at your facility, frequent routine checks and monitoring including at point of service should be conducted per established policy. If a patient is not tolerating a thickened liquid, removal from service to perform immediate testing is necessary to determine if the product is consistent with the diet order or if additional clinician evaluation is indicated.

Many products are available for direct purchase by consumers. Distribute IDDSI Consumer Handouts and NCM Client Education handouts to provide texture modification education to patients purchasing their own products.

Audit Sheets

IDDSI has developed the following audit sheets which are available on the IDDSI Resources page under Implementation Resources:

- Liquids (Levels 0-3)
- Level 4 - Pureed
- Level 4 - Extremely Thick
- Level 5 - Minced and Moist
- Level 6 - Soft and Bite Sized
- Level 7 - Easy to Chew

The audit sheets will help you determine if certain foods at your facility meet IDDSI criteria.

Using IDDSI Testing Methods

IDDSI testing procedures to verify food textures and liquid consistencies require use of items commonly available in kitchens and health care facilities, such as forks, spoons, and syringes. These tools provide practical, consistent evaluation of specific food and fluid texture consistency, which ensures standardization of food and liquid consistency and improves patient safety. It is essential to complete all applicable testing methods when testing a menu item.

The following tables describe each IDDSI level and its testing methods. Subscribe to IDDSI's YouTube Channel to view IDDSI testing method videos.

IDDSI Food Texture Descriptions and Testing Methods		
Food/Drink Consistency	Description	Testing Method
Level 7 Regular (Black)	All textures allowed if developmentally appropriate and age appropriate. Any size and crunchy foods allowed; mixed consistency allowed.	
Level 7 Easy to Chew (Black)	Soft, tender foods; no hard, tough, stringy, crunchy or chewy foods. Mixed consistency allowed if safe for Level 0 and with clinician approval. Size of food pieces are not restricted. Some soft bread allowed per clinician approval.	Fork Pressure Test: Press the base of a fork into a food sample the size of a thumb nail until thumb nail blanches to white. Sample should change shape when pressure applied and not return to original shape when pressure and fork removed. Fork/Spoon Separation Test: Fork held on side can easily cut or break item into smaller pieces.

<p>Level 6 Soft & Bite-Sized (Blue)</p>	<p>Soft, tender, moist foods that are easily mashed; no mixed consistency. Foods should be bite sized with particle size no greater than 15 mm = 1.5 cm x 1.5 cm for adults and no greater than 8 mm for pediatric.</p>	<p>Fork Pressure Test: Press the base of a fork into a food sample the size of a thumb nail until thumb nail blanches to white. Sample should change shape when pressure applied and not return to original shape when pressure and fork removed.</p> <p>Fork/Spoon Separation Test: Fork held on side can easily cut or break item into smaller pieces.</p> <p>Fork Test: For particle size. Measure food pieces to confirm they are no greater than 15 mm for adults (approximate width of standard fork and is about the size of an adult human thumb nail).</p> <p>Note: Food pieces for pediatric is smaller.</p>
	<p>Soft and moist foods; can be scooped and shaped; easily mashed by fork. No mixed consistency. Lumps should be easily squashed with tongue</p>	<p>Fork Pressure Test: Food particles easily fit between the standard slots of fork prongs and come through when pressed. Easier to mash food with fork than Level 6 and thumb nail does not blanch white.</p> <p>Fork Test: For particle size. Measure food pieces to confirm size requirement. The space between tines on a standard metal fork is 4</p>

<p>Level 5 Minced & Moist (Orange)</p>	<p>and have a particle size no greater than 4 mm wide by 15 mm long for adults and no greater than 2 mm wide by 8 mm long for pediatrics.</p> <p>Biting not required; Minimal chewing required and able to move bolus.</p>	<p>mm and that the width of the base of fork is approximately 15 mm.</p> <p>Note: Food pieces for pediatric is smaller.</p> <p>Fork Drip Test: Scooped sample sits in pile and does not fall through prongs.</p> <p>Spoon Tilt Test: Sample holds shape on spoon. When spoon tilted, sample slides off spoon with little residual left behind (not sticky). Sample should not separate into individual grains/pieces.</p>
<p>Level 4 Pureed Food (Green)</p>	<p>Smooth, lump free; not firm or sticky; does not require chewing or bolus formation. Falls off spoon as intact spoonful and holds shape. No mixed consistency. Liquids cannot be poured, drank from a cup; or sucked through a straw.</p>	<p>Fork Drip Test: No lumps; stays as mound on fork with very little/no flow through prongs.</p> <p>Spoon Tilt Test: Holds shape; not firm or sticky; sample slides off easily. If it is too thick, sample will not fall off spoon when tilted or will stick to spoon.</p> <p>Fork Test: When fork is pressed into the food sample, tines make pattern and/or indentation stays.</p> <p>IDDSI Flow test not applicable to this level.</p>

Level 3 Liquidized Food (Yellow)	<p>Smooth foods and fluids without lumps; does not hold shape on plate; requires no chewing or oral processing and can be directly swallowed. Drips slowly through slots of fork. Requires moderate effort to suck through straw.</p> <p>Examples for this category: runny puree fruit or infants “first foods”; fruit syrup; and some sauces/gravies.</p>	<p>IDDSI Flow Test: See instructions in IDDSI Testing Methods</p> <p>Fork Drip Test: Drips slowly in dollops; spreads out if spilled onto flat surface (plate).</p> <p>Fork Test: When fork is pressed into the food sample, the tines do not leave a clear pattern.</p> <p>Spoon Tilt Test: Easily pours; no sticking to spoon.</p>

IDDSI Liquid Consistencies and Testing Methods		
Food/Drink Consistency	Description	Testing Method
Level 4 Extremely thick liquid (Green)	<p>Smooth, lump free; not firm or sticky; does not require chewing or bolus formation. Falls off spoon as intact spoonful and holds shape. No mixed consistency. Liquids cannot be poured, drank from a cup; or sucked through a straw.</p>	<p>Fork Drip Test: no lumps; stays as mound on fork with very little/no flow through prongs.</p> <p>Spoon Tilt Test: Holds shape; not firm or sticky; sample slides off easily. If it is too thick, sample will not fall off spoon when tilted or will stick to spoon.</p> <p>Fork Test: When fork is</p>

		<p>pressed into the food sample, tines make pattern and/or indentation stays.</p> <p>IDDSI Flow test not applicable to this level.</p>
Level 3 Moderately thick liquid (Yellow)	<p>Smooth foods and fluids without lumps; does not hold shape on plate; requires no chewing or oral processing and can be directly swallowed. Drips slowly through slots of fork. Requires moderate effort to suck through straw.</p>	<p>IDDSI Flow Test: See instructions in IDDSI Testing Methods</p> <p>Fork Drip Test: Drips slowly in dollops; spreads out if spilled onto flat surface (plate).</p> <p>Fork Test: When fork is pressed into the food sample, the tines do not leave a clear pattern.</p> <p>Spoon Tilt Test: Easily pours; no sticking to spoon.</p>
Level 2 Mildly thick liquid (Pink)	<p>Flows off spoon; pours slower than thin drinks; Sippable; some effort needed for straw use; May be suitable if tongue control slightly reduced</p>	<p>IDDSI Flow Test: See instructions in IDDSI Testing Methods</p>
Level 1 Slightly thick liquid (Grey)	<p>Thicker than water and flows through straw, syringe or nipple; similar to infant formula. Little more effort required to drink than thin liquids.</p>	<p>IDDSI Flow Test: See instructions in IDDSI Testing Methods</p>

Level 0 Thin liquids (White)	Flows like water; can drink through any teat/nipple, cut or straw per age/skill	IDDSI Flow Test: See instructions in IDDSI Testing Methods

Additional IDDSI Testing Resources

This chart will assist you in converting IDDSI size requirements from millimeters to inches.

IDDSI Measurement Conversions		
Measurement in Millimeters (mm)	Measurement in Inches (in)	Approximate Measurement
15 mm	.59 in	Just less than 5/8 inch
14 mm	.55 in	Just over 1/2 inch
8 mm	.31 in	Just less than 1/3 inch or 5/16 inch
4 mm	.15 in	Slightly greater than 1/8 inch
3 mm	.11 in	1/8 inch
2 mm	.07 in	Slightly greater than 1/16 inch

This chart summarizes which testing methods are used while testing each level. All applicable food testing methods completed on a food item confirms its appropriateness.

Appropriate IDDSI Testing Methods for Food Levels					
IDDSI Testing Methods	Level 7 Easy to Chew (Black)	Level 6 Soft & Bite Sized (Blue)	Level 5 Minced & Moist (Orange)	Level 4 Puree (Green)	Level 3 Liquidized (Yellow)
Fork/Spoon Separation Test: Checks if food breaks apart easily.	Yes	Yes	N/A	N/A	N/A

Fork Pressure Test: Checks for softness and this mimics tongue pressure.	Yes, and thumb nail may turn white.	Yes, and thumb nail may turn white.	Yes, and thumb nail does NOT turn white.	Use fork to press on surface of food. Tines make pattern and/or indentation stays.	Use fork to press on surface of food. Tines do not leave a pattern on food surface.
Fork Test: Checks for particle size.	N/A	15 mm size = width of fork or size of thumbnail Size for adults-15 mm Size for pediatrics-8 mm	4 mm size = space between tines; mimics chewed solids before swallowing. Size for adults-4mm wide x 15 mm long Size for pediatrics- 2 mm wide x 8 mm long	N/A	N/A
Fork Drip Test: Determines if too thin or too thick; and if there is separate liquid from solid.	N/A	N/A	Food sits on top of fork; does not fall through.	Food stays as a mound. Only small amount drips through; no dollop.	Drips slowly or in dollops through spaces between tines.
Spoon Tilt Test: Measures stickiness and how well food holds together (cohesiveness).	N/A	N/A	Foods hold its shape; not sticky; does not separate into individual grains/pieces.	Food slips off spoon, may need slight flick; may leave small film; may spread slightly on plate.	Easily pours from spoon and does not stick to the spoon.

Definition: This diet allows all foods and is intended for individuals without chewing or swallowing difficulties. All food textures, consistencies, and transitional foods are permitted. This is not a texture-modified diet.

The regular diet can be modified to specify the allowed/not allowed foods for an individual patient, which are determined by the speech-language pathologist (SLP). Foods should further meet the complete descriptive and testing specifications of the International Dysphagia Diet Standardisation Initiative (IDDSI, 2019a; IDDSI, 2019b). See House/Regular Diet.

Examples of diet terminology to use and what foods to avoid include:

- House (or any therapeutic diet), regular Level 7 with Level 6 soft & bite-sized fruits/vegetables
- Consistent Carbohydrate Diet, regular Level 7 no hard breads; or use no breads/sandwiches
- 2 g Low Sodium Diet, regular Level 7 no mixed consistencies
- Lactose-controlled Diet, regular Level 7 with level 6 soft & bite-sized meats

Level 7 Regular Easy-to-Chew (Black)

Definition: The Level 7 Regular Easy-to-Chew diet is prescribed to people who may have difficulty chewing hard, tough, stringy, or crunchy foods. It requires the ability to bite, chew, and orally process foods without easily tiring and the ability to eat independently. This texture-modified diet has no food size restriction and is NOT intended for individuals with swallowing problems or at a clinically identified risk for choking. The Level 7 Regular Easy-to-Chew diet may include mixed-consistency foods and some bread products if the clinician assessment deems it as safe. Foods should further meet the complete descriptive and testing specifications of the International Dysphagia Diet Standardisation Initiative (IDDSI, 2019a; IDDSI, 2019b).

Food lists are based on the International Dysphagia Diet Standardization Initiative (IDDSI) Framework. Use IDDSI testing methods to confirm foods and drinks are safe.

The following table is not a complete list of foods. Other foods may be OK to eat as long as they meet the IDDSI food testing requirements.

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>All well-moistened soft, cooked, dry, hot, or cold cereals with excess liquid drained</p> <p>All starches including couscous, pasta, quinoa, rice, wild rice, and moist bread dressing (as tolerated)</p> <p>Bread, toast, and sandwiches that can be cut or broken apart into smaller pieces with the side of a spoon/fork*</p>	<p>Dry bread, toast, crackers</p> <p>Tough, thick crusty breads such as French bread or baguettes</p> <p>Dry bread dressing</p> <p>Bread with nuts or seeds</p> <p>Coarse or dry cereals such as shredded wheat or bran flakes</p> <p>Dry cakes, cookies that are chewy, sticky, or very dry</p>
	<p>Chop or cut into pieces as needed:</p> <p>Prepared, moistened, soft/tender red meat, including beef, pork, or lamb served with gravy or sauce; chop or cut up as</p>	<p>Tough, dry, red meats (beef, pork, lamb) or meats with bone and/or gristle</p> <p>Tough, dry poultry (chicken and turkey)</p> <p>Poultry with bone/gristle</p>

Protein
Foods

needed

Prepared, moistened, soft/tender poultry, including chicken or turkey served with gravy or sauce that is chopped or cut up as needed

Prepared, moistened, tender seafood, including fish (salmon, herring, and sardines), shrimp, lobster, clams, and scallops served with gravy or sauce

Tender, thin sliced deli meats such as bologna, ham, salami (made of meat or poultry) that is cut up or chopped as needed; salad-type sandwich filling

Bacon and sausage (as tolerated)

Eggs and egg substitutes, prepared in any way you prefer

Casseroles with tender, soft ingredients including meat or ground meats served in mildly, moderately, or extremely thick sauce with excess liquid drained

Smooth, nut and seed butters, such as peanut butter, almond butter, and sunflower seed butter (as tolerated)

Prepared, moistened soy foods, such as tofu or tempeh

Prepared, moistened meat alternatives, such as

Tough, dry fish

Fish with bones

Tough, dry, stringy deli meats, such as pastrami, corned beef

Bacon and sausage (if not tolerated)

Chunky nut seed butters

Whole nuts, such as peanuts and almonds, pistachios

Seeds such as sunflower, sesame, and pumpkin seeds

	<p>veggie burgers, and sausages based on plant protein</p> <p>Prepared, moistened legumes, such as dried beans, lentils, or peas</p>	
Dairy and Dairy Alternatives	<p>Milk, yogurt (without nuts or coconut), cottage cheese, and soft, not sticky or chewy cheeses</p> <p>Fortified soymilk</p> <p>Cream cheese, sour cream, and whipped topping</p> <p>Pudding, custard</p> <p>Frozen desserts such as ice cream, sherbet, malts, and frozen yogurt*</p>	<p>Yogurt with nuts or coconut</p> <p>Hard or dry cheese</p> <p>Chunks of cheese that are hard to eat because they are very sticky or very chewy</p> <p>Cream cheese spread with coarse, difficult to chew, or chunky additives like nuts or pineapple</p>
Vegetables	<p>All cooked, tender vegetables soft enough to be broken apart with the side of a spoon/fork</p> <p>All tender potatoes soft enough to be broken apart with the side of a spoon/fork</p> <p>Vegetable juices</p>	<p>All raw vegetables</p> <p>Undercooked vegetables including some stir-fried vegetables</p> <p>Cooked vegetables that are fibrous, tough, or stringy, such as green beans, peapods, and rhubarb</p> <p>Tough, crisp fried vegetables such as potato skins or crisp-fried potatoes</p>
Fruit	<p>All canned and cooked fruits, soft enough to be broken apart with the side of a spoon/fork</p> <p>Fruit drained of excess liquid if recommended by clinician</p> <p>Soft, peeled fresh fruits such as peaches, nectarines, kiwi, cantaloupe, honeydew, and seedless</p>	<p>Fresh fruits that are difficult to chew such as apples or pears</p> <p>Stringy, high-pulp fruits such as papaya, pineapple, or mango</p> <p>Fresh fruits with difficult-to-chew peels or skins such as grapes</p> <p>Dried fruits such as prunes, raisins, or apricots</p>

	watermelon**, *** Soft berries with small seeds (such as strawberries) 100% fruit juice Moist, cooked raisins (in recipes)	Sticky and chewy fruit items such as fruit leather, fruit roll-ups, fruit snacks, dried fruits
Oils	Olive, peanut, and canola oils Margarines and spreads Salad dressing Butter, gravy, cream sauces	All fats with coarse, difficult to chew, or chunky additives
Beverages	Coffee, tea, water, 100% fruit juice	
Other	Prepared foods, including all soups with tender meats, casseroles, baked goods, and snacks made from recommended ingredients All seasonings and sweeteners, including honey, jams, jellies, and preserves Non-chewy candies without nuts, seeds, or coconut; non-sticky, non-gummy candies	Nuts, seeds, coconut Candies with nuts, seeds, or coconut Chewing gum Chewy caramel or taffy-style candies and marshmallows Corn chips and potato chips Popcorn and sticky rice cakes

* Bread, bread products, sandwiches, and frozen desserts are OK to eat if approved by the clinician.

** Watermelon and other fruits with high water content may be difficult to chew because the juice separates from the solids in the mouth.

*** Hard seeds from fruit may be accidentally ingested.

Use the blue "Related Client Ed" link to the left of the title of this page to access the Level 7 Regular Easy-to-Chew Sample 1-Day Menu with nutrient analysis.

Level 6 Soft and Bite-Sized (Blue)

Definition: The Level 6 Soft and Bite-Sized diet is prescribed for people who have difficulty chewing hard, tough, stringy or crunchy food and are unable to safely bite off pieces of food. Some chewing ability is required to break food further into pieces and to move food around for a safe swallow. This diet requires a texture modification so that foods are soft, tender, moist and have no separate thin liquids. Foods should have a particle size no larger than 1.5 centimeters x 1.5 centimeters. Foods should further meet the complete descriptive and testing specifications of the International Dysphagia Diet Standardisation Initiative (IDDSI, 2019a; IDDSI, 2019b).

Food lists are based on the International Dysphagia Diet Standardization Initiative (IDDSI) Framework. Use IDDSI testing methods to confirm foods and drinks are safe.

The following table is not a complete list of foods. Other foods may be OK to eat as long as they meet the IDDSI food testing requirements.

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>All well-moistened, soft cooked hot cereals with lumps no larger than 1.5 cm x 1.5 cm pieces, drained and served without excess liquid.</p> <p>Cold cereal (if approved by your clinician) with lumps no larger than 1.5 cm x 1.5 cm, softened, drained and served without excess liquid.</p> <p>Pregelleted, soaked bread that is consistently moist throughout, with no sections that have hardened.</p> <p>Starches including</p>	<p>Dry bread, toast, crackers, biscuits, muffins, pancakes, waffles, bread dressing</p> <p>Grainy, sticky, or glutinous rice</p>

	<p>pasta, potato, and rice dishes with pieces no larger than 1.5 cm x 1.5 cm. Not sticky.</p> <p>Couscous, quinoa, or rice held together with smooth, thick sauce that keeps rice from separating into individual grains.</p> <p>Soft, cooked pasta dishes with pieces no larger than 1.5 cm x 1.5 cm; sauce does not separate from pasta.</p>	
	<p>A note about red meat, pork, lamb, chicken, and casseroles: If food cannot be served soft at 1.5 cm by 1.5 cm, instead mince the food and serve moist by following Level 5, Minced & Moist guidelines.</p> <p>Cooked, moist, soft, and tender red meat, including beef, pork, or lamb, chopped no larger than 1.5 cm x 1.5 cm pieces.</p> <p>Cooked, moist, soft, and tender poultry, including skinless chicken or turkey, chopped no larger than 1.5 cm pieces x 1.5 cm.</p> <p>Cooked, moist, soft, and tender seafood, including fish</p>	<p>Protein foods in sizes larger than 1.5 cm x 1.5 cm pieces</p> <p>Chicken, turkey and fish with skin on or with bones</p> <p>Sausage skin</p> <p>Protein foods served with undrained thin liquids, such as beef stew, chowders, and casseroles</p> <p>Fish with skin on or with bones; fish that you cannot break into small pieces (1.5 cm x 1.5 cm)</p> <p>Fried eggs</p> <p>Whole nuts and seeds (including peanuts and almonds), pistachios, and sunflower seeds</p> <p>Nut and seed butters, unless they are smooth and used in a recipe that meets testing guidelines</p> <p>Dried beans, lentils or peas that have hard shells or skins; or do not meet size expectations or</p>

Protein Foods

(salmon, herring, and sardines), shrimp, lobster, clams, and scallops; these foods should be soft enough to break and serve in pieces no larger than 1.5 cm x 1.5 cm pieces.

Eggs and egg substitutes, no larger than 1.5 cm x 1.5 cm pieces.

Casseroles with soft chunks of meat, ground meats, or tender meats no larger than 1.5 cm x 1.5 cm pieces served in mildly, moderately, or extremely thick sauce with excess liquid drained

Moistened soy foods, such as tofu or tempeh; soft enough to break and serve in pieces no larger than 1.5 cm x 1.5 cm pieces

Moistened meat alternatives, such as veggie burgers, and sausages based on plant protein; chopped no larger than 1.5 cm x 1.5 cm pieces

Sausages without skin cut into pieces no larger than 1.5 cm x 1.5 cm or ground

do not pass IDDSI testing methods

	Moistened legumes with soft skins/shells, such as dried beans, lentils, or peas no larger than 1.5 cm x 1.5 cm pieces and without tough skins. If incorporated into a recipe, must pass IDDSI testing methods.	
Dairy and Dairy Alternatives	<p>Yogurt (without nuts or coconut), cottage cheese with lumps no larger than 1.5 cm x 1.5 cm, and soft cheeses that aren't sticky or chewy</p> <p>Cream cheese, sour cream, pudding, custard and whipped topping</p> <p>Frozen desserts such as, ice cream, sherbet, malts, and frozen yogurt if recommended by a clinician</p> <p>Milk, fortified soymilk, fortified nut milk in the liquid consistency recommended by a clinician</p>	<p>Yogurt with nuts or coconut</p> <p>Hard or dry cheese, cheeses in pieces bigger than 1.5 cm x 1.5 cm pieces, and cheese that is sticky or chewy</p> <p>Frozen desserts such as, ice cream, sherbet, malts, and frozen yogurt, unless approved by a clinician</p>
	<p>Soft cooked vegetables and starchy vegetables that are served steamed or boiled in pieces no larger than 1.5 cm x 1.5 cm</p> <p>Peas, creamed peas and creamed corn with soft skins and free of husks; may be</p>	<p>All raw vegetables</p> <p>Stir-fried or fried vegetables</p> <p>Undercooked vegetables</p> <p>Peas with tough skins or shells</p> <p>Corn with husks</p> <p>Cooked vegetables that are fibrous, tough, firm, or stringy such as green beans, peapods,</p>

Vegetables	<p>blended or incorporated into IDDSI safe stews and soups. If incorporated into a recipe, must pass IDDSI testing methods.</p> <p>Vegetable juices must meet the IDDSI liquid consistency recommended by a clinician</p>	<p>and mashes</p> <p>Sticky or crunchy potatoes such as mashed potatoes and potato casseroles with hard tops</p>
Fruit	<p>Canned and cooked fruits, drained of excess juices, served cut up into pieces no larger than 1.5 cm x 1.5 cm or served minced or mashed</p> <p>Soft, peeled fresh fruits such as peaches, nectarines, kiwi, cantaloupe, and, soft berries with small seeds (for example, strawberries), cut up into pieces no larger than 1.5 cm x 1.5 cm or serve minced or mashed</p> <p>100% fruit juice in the liquid consistency recommended by a clinician</p>	<p>Fresh fruits that are difficult to chew, have peels/skins/pits/seeds that are difficult to chew, or are hard and crunchy such as apples, grapes, or pears</p> <p>Stringy, high-pulp fruits, fibrous fruits such as papaya, pineapple, rhubarb or mango</p> <p>Fruits with high water content or juice that separates from solid in the mouth such as melons (unless assessed as safe by clinician)</p> <p>Round or long fruits such as grapes</p> <p>Uncooked dried fruits such as prunes, raisins or apricots</p> <p>Fruit leather, fruit roll-ups, fruit snacks, dried fruits</p>
Oils	Any with a consistency recommended by a clinician	Liquid consistencies other than the liquid consistency recommended by a clinician

Beverages	Coffee, tea, water, 100% fruit juice, and nutritional supplements in the liquid consistency recommended by a clinician	Any with a consistency not recommended by a clinician
Other	<p>Prepared foods, including casseroles, salads, baked goods, and snacks made from recommended ingredients and served in 1.5 cm x 1.5 cm pieces</p> <p>Pureed strained soups or soups with small soft pieces (1.5 cm x 1.5 cm) that meet testing guidelines</p> <p>All seasonings and sweeteners, including honey</p>	<p>Soups, stews, casseroles, and prepared foods that have pieces bigger than 1.5 cm x 1.5 cm and that contain liquids that separate from the solid foods</p> <p>Jelly</p>

Use the blue "Related Client Ed" link to the left of the title of this page to access the Level 6 Soft & Bite-Sized Sample 1-Day Menu with nutrient analysis.

Level 5 Minced and Moist (Orange)

Definition: The Level 5 Minced and Moist diet is prescribed to people who are unable to bite foods, have pain or difficulty chewing foods, or easily tire when chewing foods. This diet requires a texture modification so that foods are minced, soft, and moist and can be scooped and easily shaped into a ball. Small lumps of food are allowed for adults if the lumps are easy to squash with the tongue and if they are no larger than 4 mm wide by 15 mm long. Foods on this diet should meet the following requirements:

- Minimal chewing necessary
- Easily mashed with gentle fork pressure
- Meets size requirements
- No separation of thin liquids

Foods should further meet the complete descriptive and testing specifications of the International Dysphagia Diet Standardisation Initiative (IDDSI, 2019a; IDDSI, 2019b).

Food lists are based on the International Dysphagia Diet Standardization Initiative (IDDSI) Framework. Use IDDSI testing methods to confirm foods and drinks are safe.

The following table is not a complete list of foods. Other foods may be OK to eat as long as they meet the IDDSI food testing requirements

Food Group	Foods Recommended (Foods should be finely minced or mashed, no larger than 4 mm wide x 15 mm long, and pass the IDDSI test for Level 5)	Foods Not Recommended (Foods larger than 4 mm wide x 15 mm long)
Grains	All well-moistened, soft cooked hot cereals that meet the size requirements. Serve without excess liquid. Cold cereal (if approved by a clinician) that meets the size requirements, drained and served without	Any cereal that doesn't meet size requirements and is served with excess liquid. Regular-consistency, dry bread or toast. Sandwiches with regular-consistency bread.

	<p>excess liquid.</p> <p>Pregelged, soaked breads that are consistently moist throughout with no hardened sections.</p> <p>Muffins, pancakes, waffles, biscuits and bread dressing served moist and that meet the size requirements. These foods may be best served puree.</p> <p>Soft cooked pasta and potato dishes that meet the size requirements. Serve in a thick and smooth sauce that does not separate from pasta.</p> <p>Rice, couscous, quinoa that is not sticky or glutinous and does not separate into individual grains when cooked. Served with a thick and smooth sauce that does not separate away from food.</p>	<p>Pasta and potato dishes with pieces that don't meet size requirements and are served in thin sauces.</p> <p>Grainy, sticky, or glutinous rice. Rice that separates into individual grains when cooked or served and is served dry without sauce.</p>
Protein Foods	<p>Note: If protein foods cannot be processed soft and at the appropriate size, puree the foods instead.</p> <p>Cooked, moist, soft and tender meats minced or finely mashed to meet the size requirements:</p> <p>Red meat, including beef, pork, sausage or lamb</p> <p>Poultry, including skinless chicken or</p>	<p>Protein foods that don't meet size requirements.</p> <p>Protein foods served with un- drained thin liquids.</p> <p>Chicken, turkey and fish with skin on or with bones.</p> <p>Fish with skin on or with bones; or that is not soft enough to be broken into size requirements.</p> <p>Chunky and smooth nut</p>

SKINNED CHICKEN OR
turkey

Seafood, including fish
(salmon, herring, and
sardines), shrimp,
lobster, clams, and
scallops

Eggs and egg
substitutes finely
mashed to meet the size
requirements.

Casseroles with small
chunks of meat, ground
meats, or tender meats
finely mashed to meet
the size requirements.
Serve in a thick and
smooth sauce or gravy,
draining excess.

Prepared, moistened soy
foods, such as tofu or
tempeh finely mashed to
meet the size
requirements.

Prepared, moistened
meat alternatives, such
as plant protein veggie
burgers and sausages
finely mashed to meet
the size requirements.
Serve in a thick and
smooth sauce or gravy,
draining excess, if
necessary.

Cooked, moistened
legumes, such as dried
beans, lentils, or peas
without shells mashed to
meet the size
requirements. Serve in a
thick and smooth sauce
or gravy, draining
excess.

seed butters, unless
recipe meets
requirements.

Whole nuts and seeds,
such as peanuts and
almonds; pistachios and
sunflower seeds.

<p>Dairy and Dairy Alternatives</p>	<p>Yogurt (without nuts or coconut), cottage cheese finely mashed to meet the size requirements.</p> <p>Cream cheese, sour cream, pudding, custard and whipped topping, with thickness adjusted as needed to meet the size requirement.</p> <p>Frozen desserts such as ice cream, sherbet, malts, and frozen yogurt if recommended by a clinician.</p> <p>Milk, fortified soymilk, fortified nut milk in the liquid consistency recommended by a clinician.</p>	<p>Yogurt with nuts or coconut.</p> <p>Hard, dry, chewy or sticky cheese.</p> <p>Cheese chunks that do not meet size requirements.</p> <p>Frozen desserts such as ice cream, sherbet, malts, and frozen yogurt, unless approved by a clinician.</p>
<p>Vegetables</p>	<p>Cooked, tender vegetables and potatoes finely mashed to meet the size requirements and with liquid drained. If indicated, serve in a thick and smooth sauce or gravy, draining excess. There should not be thin liquid separating from food.</p> <p>Peas, creamed peas and creamed corn with soft skins and free of husks; may be blended or incorporated into IDDSI safe stews and soups. If incorporated into a recipe, must pass IDDSI testing methods.</p> <p>Vegetable juices in the liquid consistency recommended by a</p>	<p>All raw vegetables including lettuce.</p> <p>Cooked vegetables larger than diet requirements.</p> <p>Cooked vegetables that are fibrous, tough, firm, or stringy such as green beans and peapods.</p> <p>Peas with tough skins or shells</p> <p>Corn with husks</p> <p>Sticky or crunchy potatoes such as potato/mashed potato casseroles with hard tops.</p> <p>Stir-fried, undercooked or fried vegetables.</p>

	Summary	
Fruits	<p>Canned and cooked fruits, drained of excess juices, served finely minced or mashed to meet the size requirement. If indicated, serve in a thick and smooth sauce or liquid, draining excess. There should not be thin liquid separating from food.</p> <p>Soft, peeled fresh fruits such as peaches, nectarines, kiwi, cantaloupe, and honeydew, soft berries with small seeds (ie, strawberries).</p> <p>If indicated, serve in a thick and smooth liquid, draining excess. There should not be thin liquid separating from food.</p> <p>100% fruit juice in the liquid consistency recommended by a clinician.</p>	<p>Soft fruit pieces larger than required of diet, or fruit served with excess juice.</p> <p>Most fresh fruits with difficult-to-chew peels or pits/seeds such as grapes and apples; and difficult-to-chew or hard/crunchy fresh fruits such as apples or pears.</p> <p>Stringy, high-pulp fibrous fruits such as papaya, pineapple, rhubarb or mango unless prepared to meet diet requirements.</p> <p>Fruits with high water content, that juice separates from solid in the mouth such as watermelon unless approved by a clinician.</p> <p>Dried fruits such as raisins, prunes or apricots.</p> <p>Fruit leather, fruit roll-ups, fruit snacks, dried fruits.</p>
Beverages	Coffee, tea, water, 100% fruit juice, and nutritional supplements in the liquid consistency recommended by a clinician.	Liquids not approved by a clinician.
Other	<p>Prepared foods, including casseroles, cooked salads, baked goods, and snacks that meet the size requirement.</p> <p>If indicated, serve in a</p>	Jelly

thick and smooth sauce, gravy or liquid, draining excess. There should not be thin liquid separating from food.

Pureed soups with small chunks that meet size requirement.

All seasonings and sweeteners, including honey.

Use the blue "Related Client Ed" link to the left of the title of this page to access the Level 5 Minced and Moist Sample 1-Day Menu with nutrient analysis.

Level 4 Pureed (Green)

Definition: The Level 4 Pureed Food diet is prescribed to people who have pain when chewing or swallowing or are unable to bite or chew foods. This diet requires a texture modification so that foods are smooth and lump-free and foods should not be firm or sticky. Foods should fall off spoon as an intact spoonful, hold its shape on a plate, and liquid must not separate from solid. Foods do not require chewing or bolus formation. Foods and liquids should further meet the complete descriptive and testing specifications of International Dysphagia Diet Standardization Initiative (IDDSI, 2019a; IDDSI, 2019b).

Food lists are based on the International Dysphagia Diet Standardization Initiative (IDDSI) Framework. Use IDDSI testing methods to confirm foods and drinks are safe.

The following table is not a complete list of foods. Other foods may be OK to eat as long as they meet the IDDSI food testing requirements.

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Pureed soft-cooked hot cereals with no lumps. Served without excess liquid.</p> <p>Soft breads, rolls, pastries, pancakes, French toast, muffins, donuts and bread dressing that have been pureed.</p> <p>Pre-gelled, soaked bread, cakes, cookies, and other grains that are consistently moist throughout without hard parts formed during sitting.</p> <p>Pureed, moist pasta, potatoes, and rice without lumps.</p> <p>Liquids/sauces do not separate from food.</p>	<p>Grains</p> <p>Any item that is not pureed or has lumps. Dry cereal, cooked cereal with lumps, cereal with seeds.</p> <p>Grainy, sticky, or glutinous rice. Rice that separates into individual grains when cooked or served.</p> <p>Pre-gelled, shaped, and molded puree foods that are too firm or sticky at serving temperature.</p>

Protein Foods	<p>Pureed, moistened, tender protein foods that meet IDDSI Level 4 puree testing expectations:</p> <p>Red meat, including beef, pork, or lamb.</p> <p>Poultry, including skinless chicken or turkey.</p> <p>Seafood, including fish (salmon, herring, and sardines), shrimp, lobster, clams, and scallops.</p> <p>Pureed eggs and egg substitutes.</p> <p>Pureed, smooth casseroles with no liquid separating from the solid; moist with incorporated sauces/gravies.</p> <p>Pureed, moistened soy foods, such as tofu or tempeh.</p> <p>Pureed, moistened meat alternatives, such as veggie burgers, and sausages based on plant protein.</p> <p>Pureed, smooth, moistened legumes, such as dried beans, lentils, or peas.</p>	<p>Protein foods not pureed into smooth, lump free items.</p> <p>Protein foods served with undrained thin liquids.</p> <p>Chicken, turkey and fish with skin on or with bones.</p> <p>Chunky and smooth nut seed butters, unless used in a recipe that is pureed and meets testing expectations.</p> <p>Whole nuts and seeds, such as peanuts and almonds; pistachios and sunflower seeds.</p>
Dairy and Dairy Alternatives	<p>Smooth yogurt (without nuts or coconut) or pureed; and pureed cottage cheese.</p> <p>Whipped cream cheese, sour cream,</p>	<p>Yogurt with lumps, seeds, fruit pieces, nuts or coconut; yogurt that is too thin, separates into liquid or is too thick.</p> <p>Cheeses unless pureed into allowed recipe.</p>

	<p>and whipped topping used in allowed recipes and as condiments.</p> <p>Frozen desserts such as ice cream, sherbet, malts, and frozen yogurt if recommended by your clinician.</p> <p>Milk, fortified soy milk, fortified nut milk in the liquid consistency recommended by your clinician.</p>	<p>Frozen desserts such as ice cream, sherbet, malts, and frozen yogurt unless approved by your clinician.</p>
Vegetables	<p>Pureed cooked tender vegetables and potatoes. If indicated, serve in a thick and smooth sauce or gravy, draining excess. There should not be thin liquid separating from food.</p> <p>Smooth tomato sauce without seeds.</p> <p>Mashed potatoes and whipped sweet potatoes without skin</p> <p>Vegetable juices in the liquid consistency recommended by your clinician.</p>	<p>All raw vegetables.</p> <p>Stir-fried or fried vegetables that do not puree into smooth, lump free product.</p>
Fruit	<p>Pureed canned and cooked fruits, drained of excess juices; pureed fresh fruit if smooth and lump free with no separate of liquids.</p> <p>100% fruit juice in the liquid consistency recommended by your clinician</p>	<p>All non-pureed fruits; seeds and skins.</p> <p>Stringy, high-pulp fruits such as papaya, pineapple, or mango that do not puree into smooth, lump free product.</p> <p>Uncooked dried fruits such as raisins, prunes, or apricots.</p>

	Smooth, lump free pureed prunes and apricots that pass IDDSI puree testing expectations.	Fruit leather, fruit roll-ups, fruit snacks, dried fruits.
Beverages	Coffee, tea, water, and nutritional supplements in the liquid consistency recommended by your clinician.	Liquids not approved by your clinician.
Other	<p>Pureed foods, including all soups with tender meats, casseroles, baked goods, and snacks made from recommended ingredients that are smooth and lump free.</p> <p>All seasonings and sweeteners; honey if mixed into food that passes IDDSI testing expectations.</p>	Jelly

Use the blue "Related Client Ed" link to the left of the title of this page to access the Level 4 Pureed Sample 1-Day Menu with nutrient analysis.

Thickened Liquids

Thickeners help to slow the movement of liquids/drinks, allowing patients to have better control over their swallow. All liquids/drinks should be thickened to meet the prescribed order.

- Thickened liquids/drinks may be purchased pre-mixed or may be made by adding commercial thickeners.
- Puree all soups and strain the liquid to remove chunks or lumps. Once these liquids are smooth, thicken them with flour, cornstarch, potato flakes, or commercial thickeners to the prescribed order.
- Beverages such as milk, juices without pulp, coffee, tea, soda, carbonated beverages, alcoholic beverages, eggnog and nutritional supplements should be thickened to the prescribed order.
- Beverages and supplements made with ice cream, frozen yogurt, or sherbet such as malts and milk shakes are not recommended. These beverages become thin liquids at body temperature (98°F).
- Frozen foods such as sherbet, frozen yogurt, and ice cream are not recommended. These foods become thin liquids at body temperature (98°F).
 - Some ice cream and frozen products are designed to meet IDDSI guidelines for liquid/drink levels.
 - These products are labeled including the level number and color.
- Gelatin is not recommended. It becomes thin liquid at body temperature (98°F).
- Yogurt may need to be thickened to the prescribed order.

Utilize IDDSI Thickened Liquid Nutrition Therapy client education handout and individualize with IDDSI Consumer Handouts or per facility policies and procedures.

Use the following table to familiarize yourself with the IDDSI guidelines for liquid/drink levels, descriptions, and testing methods.

IDDSI Liquid/Drink Levels and Testing Methods		
Food/Drink Level	Description	Testing Method
	Smooth, lump free; not firm or sticky; does not require chewing or bolus formation. Falls off spoon as intact spoonful and holds shape. No mixed consistency. Liquids cannot be poured, drank from a cup; or sucked through a straw.	<p>Fork Drip Test: no lumps; stays as mound on fork with very little/no flow through prongs.</p> <p>Spoon Tilt Test: Holds shape; not firm or sticky; sample slides off easily. If it is too thick, sample will not fall off ...</p>

Level 4 Extremely thick liquid (Green)	Straw.	<p>spoon when tilted or will stick to spoon.</p> <p>Fork Test: When fork is pressed into the food sample, tines make pattern and/or indentation stays.</p> <p>IDDSI Flow test not applicable to this level.</p>
Level 3 Moderately thick liquid (Yellow)	<p>Smooth foods and fluids without lumps; does not hold shape on plate; requires no chewing or oral processing and can be directly swallowed. Drips slowly through slots of fork. Requires moderate effort to suck through straw.</p>	<p>IDDSI Flow Test: See instructions in IDDSI Testing Methods</p> <p>Fork Drip Test: Drips slowly in dollops; spreads out if spilled onto flat surface (plate).</p> <p>Fork Test: When fork is pressed into the food sample, the tines do not leave a clear pattern.</p> <p>Spoon Tilt Test: Easily pours; no sticking to spoon.</p>
Level 2 Mildly thick liquid (Pink)	<p>Flows off spoon; pours slower than thin drinks; Sippable; some effort needed for straw use; May be suitable if tongue control slightly reduced</p>	<p>IDDSI Flow Test: See instructions in IDDSI Testing Methods</p>

Level 1 Slightly thick liquid (Grey)	Thicker than water and flows through straw, syringe or nipple; similar to infant formula. Little more effort required to drink than thin liquids.	IDDSI Flow Test: See instructions in IDDSI Testing Methods
Level 0 Thin liquids (White)	Flows like water; can drink through any teat/nipple, cut or straw per age/skill	IDDSI Flow Test: See instructions in IDDSI Testing Methods

Level 3 Liquidized Food (Yellow)

Definition: A diet used in the dietary management of dysphagia with food texture modification described as smooth foods without lumps that cannot be molded on a plate, require no oral processing or chewing, can be directly swallowed, and further meet the complete descriptive and testing specifications of International Dysphagia Diet Standardisation Initiative (IDDSI, 2019a; IDDSI, 2019b).

Refer to Using IDDSI Testing Methods for additional information and IDDSI testing methods.

Level 4 Extremely Thick Liquid (Green)

Definition: A diet used in the dietary management of dysphagia with liquid thickness modification described as liquids that show slow movement under gravity, cannot be poured, cannot be drunk from a cup or sucked through a straw, liquid must not separate from solid, and further meet the complete descriptive and testing specifications of International Dysphagia Diet Standardisation Initiative (IDDSI, 2019a; IDDSI, 2019b).

Refer to Thickened Liquids for additional information and IDDSI testing methods.

Level 3 Moderately Thick Liquid (Yellow)

Definition: A diet used in the dietary management of dysphagia with liquid thickness modification described as liquids that are smooth in texture, no lumps or fibers, and drips slowly in strands through slots of a fork. Requires some effort to suck through a standard or large bore straw, and further meets the complete descriptive and testing specifications of International Dysphagia Diet Standardisation Initiative (IDDSI, 2019a; IDDSI, 2019b).

Refer to Thickened Liquids for additional information and IDDSI testing methods.

Level 2 Mildly Thick Liquid (Pink)

Definition: A diet used in the dietary management of dysphagia with liquid thickness modification described as liquids that are sippable, flow off a spoon at a slower rate than thin liquid, requires effort to suck through a standard straw, and further meet the complete descriptive and testing specifications of International Dysphagia Diet Standardisation Initiative (IDDSI, 2019a; IDDSI, 2019b).

Refer to Thickened Liquids for additional information and IDDSI testing methods.

Level 1 Slightly Thick Liquid (Grey)

Definition: A diet used in the dietary management of dysphagia with liquid thickness modification described as liquids that are thicker than water, flows through a straw or syringe or nipple, similar in thickness to commercially available anti-regurgitation infant formula, and further meet the complete descriptive and testing specifications of International Dysphagia Diet Standardisation Initiative (IDDSI, 2019a; IDDSI, 2019b).

Refer to Thickened Liquids for additional information and IDDSI testing methods.

Clear Liquid Diet

Definition: The clear liquid diet is composed of fluids and foods (broth, gelatin, and popsicles) that are transparent (that is, you can see through them) and that are liquid at body temperature. Foods allowed in this diet include items that consist of primarily sugar and water and meat or vegetable broths, which are primarily composed of water and salt. Some institutions serve hard candy as part of the clear liquid diet because it dissolves to sugar and water at body temperature. Portion sizes of this diet may be modified to meet the needs of post-operative bariatric surgery patients.

The Clear Liquid Diet in the NCM Diet Manual is based on a consistent carbohydrate intake. Facilities use many names for this diet, including regular diet, house diet, or general, healthy diet. Diet orders include two components: The therapeutic component (house) and the texture component (regular).

Use the NCM Diet Manual Crosswalk to identify terminology for your facility's House/Regular Diet and to identify the terminology and definition for applicable NCM content.

Indications: Once widely used in hospitals, the clear liquid diet has been used to maintain hydration while minimizing residue in the bowel in the following situations: acute gastrointestinal illness, preparation for surgery or procedure, or food reintroduction after procedure. This diet is intended for short-term use. This diet should be used only when absolutely necessary while preparing for surgery, recovering from surgery, during certain gastrointestinal symptoms (distention, nausea/vomiting) or during evaluation of or presence of anastomotic leak.

Nutritional Adequacy: The clear liquid diet should be used minimally (only when absolutely necessary). It does not provide enough nutrients to meet the needs of patients of all ages. Long-term use of clear liquids is not recommended. This diet should not be ordered for more than two meals as it is deficient in several nutrients for all patients. Clear liquid–fortified beverages may improve protein intake while on a clear liquid diet. The inclusion of these beverages extends the duration of using this diet up to 3-4 days. However, even with clear liquid–fortified beverages, the clear liquid diet does not provide enough nutrients to meet the nutrition needs of patients. Patients receiving this diet are monitored closely so they can progress as rapidly as tolerated to solid foods (or nutrition support, where necessary).

Individuals with diabetes should not be prescribed a “sugar-free” clear liquid diet. Limiting carbohydrate intake for individuals with diabetes restricts an important source of nutrients while on this restricted diet. Menus should be planned to provide approximately 200 g carbohydrate per day, which is to be divided into meals and snacks (CMS, 2015). The Clear Liquid Diet menu provided in the NCM Diet Manual meets these specifications.

Food Group	Foods Recommended	Foods Not Recommended
Grains	None	All grain foods including whole grains, processed grains such as pasta, rice, hot and cold cereals, bread, snacks and sweets that are flour-based (cakes, cookies)
Protein Foods	None	Beef and pork (all cuts) Chicken and turkey (all cuts) Fish (all types) Nuts and nut butters (all types) Eggs (all types) Meat substitutes (all types) such as soy and tofu Cold cuts or lunch meat (all types) including salami, ham, roast beef, deli turkey, etc. Sausage (all types)
Dairy	None	Milk (all types) Ice cream, sour cream, cream cheese Yogurt Cheese
Vegetables	None	Frozen, fresh, canned varieties Vegetable juice with pulp
Fruits	Translucent fruit juices without pulp (apple, cranberry, grape)	Frozen, fresh, canned varieties Fruit juice with pulp
Oils	None	Butter, margarine, oils (all)
Other	Flavored gelatin (any flavor) Chicken, beef, or vegetable broths Popsicle	Spices Sauces Seasonings

Beverages	Tea Coffee Water, ice Clear soda Translucent nutritional supplements	All beverages and nutritional supplements that are not translucent
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Clear Liquid Sample 1-Day Menu

Meal	Menu
Breakfast	4 ounces cranberry juice 1.5 cups chicken broth 4 ounces lime gelatin 8 ounces clear soda 8 ounces coffee
Lunch	4 ounces grape juice 1.5 cups beef broth 8 ounces clear soda 1 popsicle 8 ounces tea
Dinner	4 ounces apple juice 1.5 cups chicken broth 8 ounces clear soda 1 popsicle 8 ounces tea
Snack	4 ounces grape juice 1 popsicle

Menu Nutrient Analysis

Clear Liquid Diet Nutrition Therapy

Full Liquid Diet

Definition: The full liquid diet includes the foods allowed on the clear liquid diet plus milk and small amounts of fiber. With this diet, thin cereal or gruel, strained cream soups, milkshakes, custard, and pudding could be provided along with juices or nectars that do not contain pulp. Nondairy substitutes are indicated for patients with lactose-intolerance. Portion sizes of this diet may be modified to meet the needs of postoperative bariatric surgery patients. Specific nutrients (carbohydrates, sodium, fat, etc.) can also be modified to meet the needs of individuals with specific medical conditions. Provide special guidance to patients with lactose intolerance, as this diet includes many milk-based items.

Indications: Though the traditional indication for the full liquid diet is short-term use as a transition step between the clear liquid diet and soft diet following gastrointestinal surgery research suggests that there are no data supporting the use of a full liquid diet as part of a postoperative diet progression (Warren, 2011). However, this diet is included in the NCM Diet Manual because many health care facilities still prescribe this diet for temporary diet progression. The trend toward early postoperative discharge has rendered elaborate postoperative diet regimens impractical; therefore, the full liquid diet is no longer widely advocated or used. A review of postoperative diet advancement does not even mention the full liquid diet (Warren, 2011). For patients with chewing or swallowing difficulties that may benefit from a liquid diet, dysphagia diets are recommended.

Nutritional Adequacy: The full liquid diet is adequate in energy, protein, and fat but may be inadequate in vitamins, minerals, and bioactive substances, including fiber. Oral supplements may be ordered to supplement the nutrient intake in this diet for patients who require this diet for more than 3-4 days to assist them in meeting their needs.

Food Group	Foods Recommended	Foods Not Recommended
Grains	Thin hot cereal, such as cream of wheat	All grain foods including whole grains, processed grains such as pasta, rice, hot and cold cereals, bread, snacks and sweets that are flour-based (cakes, cookies)
		Beef and pork (all cuts) Chicken and turkey (all cuts) Fish (all types)

Protein Foods		<p>Nuts and nut butters (all types)</p> <p>Eggs (all types)</p> <p>Meat substitutes (all types) such as soy and tofu</p> <p>Cold cuts or lunch meat (all types) such as salami, ham</p> <p>Sausage (all types)</p>
Dairy	<p>Milk: skim, 1%, 2%, whole</p> <p>Soy milk, almond milk, rice milk, coconut milk</p> <p>Ice cream and milkshakes</p> <p>Yogurt (blended style without seeds or chunks)</p> <p>Custard</p> <p>Pudding</p>	<p>Sour cream, cream cheese</p> <p>Yogurt with fruit chunks or seeds</p> <p>Hard cheeses</p>
Vegetables	<p>Vegetable juice without pulp</p> <p>Thin, pureed vegetable soups</p>	<p>Whole, frozen, fresh, canned varieties</p>
Fruits	<p>Translucent fruit juices without pulp (apple, cranberry, grape)</p>	<p>Whole, frozen, fresh, canned varieties</p>
Oils	<p>Almond, avocado, canola, cashew, corn, grapeseed, olive, safflower, sesame, soybean, sunflower</p> <p>Butter (melted)</p> <p>Trans fat-free margarine (melted)</p>	<p>Solid butter, margarine, oils (all)</p>
Other	<p>Flavored gelatin (any flavor)</p> <p>Chicken, beef, or vegetable broths</p> <p>Popsicle</p> <p>Sauces</p> <p>Seasonings</p> <p>Spices</p>	

Beverages	Tea	
	Coffee	
	Water, ice	
	Translucent and opaque nutritional supplements	

Full Liquid Sample 1-Day Menu

Meal	Menu
Breakfast	½ cup orange juice 1 cup cream of wheat 1 cup milk 6 ounces yogurt 8 ounces coffee
Lunch	1 cup apple juice 1 cup tomato soup ½ cup chocolate pudding 1 cup high-protein chocolate shake 8 ounces tea
Dinner	½ cup grape juice 1 cup milk 1 cup high-protein vanilla shake 1 cup strained, blended cream of broccoli soup ¼ cup custard
Snack	1 cup high-protein strawberry shake

Menu Nutrient Analysis

Full Liquid Nutrition Therapy

Consistent Carbohydrate Diet

Definition: Carbohydrate-controlled diets are often recommended for individuals diagnosed with diabetes, prediabetes, or some level of insulin or blood sugar imbalance. While no specific dietary pattern is recommended for the management of diabetes, controlling the amount and type of carbohydrate consumed has been found to be helpful in managing blood sugar (American Diabetes Association, 2017). The amount of carbohydrate and available insulin may be the most important factor influencing the body's response after eating and should be considered when developing a patient's eating plan (Evert, 2013). Managing carbohydrate intake whether by carbohydrate counting or experience-based estimation remains a key strategy in achieving glycemic control. Carbohydrate management is the standard method for education and meal planning for dietary management of diabetes; there are multiple approaches which can be used as the basis of carbohydrate management. These approaches include carbohydrate counting, the plate method for portion control, and carbohydrate exchange choices/lists. The carbohydrate management strategy selected should be based upon the patient's abilities, preferences, and treatment goals (EAL, 2015).

Facilities may use several names to describe a consistent carbohydrate meal plan. Previously, this diet may have had other names ("Diabetic diet", "ADA diet") but these terms are now considered obsolete because evidence suggests that there is not an ideal percentage of energy from carbohydrate, protein, and fat for all people with diabetes; therefore, macronutrient distribution should be based on individual assessment of current eating patterns, preferences, and metabolic goals (EAL, 2015).

The name of the diet should no longer emphasize the restriction of sugar or sweets but rather emphasize controlling carbohydrates. Refer to the list of Obsolete Diets that are no longer prescribed to patients with diabetes as you determine the appropriate nomenclature for your facility.

Components of Consistent Carbohydrate Diet

- There is no ideal amount of carbohydrate recommended for everyone.
- The quantity of carbohydrate is determined by the registered dietitian nutritionist (RDN) in consultation with the patient with diabetes (EAL, 2015).
- The consistent carbohydrate diet provides a range of 3-5 carbohydrate servings (45 g-75 g) at each meal along with 0-4 carbohydrate servings (0 g-30 g) during snacks. The following ranges are often used as a starting point in meal planning for people with diabetes:

Carbohydrate Servings for Meals/Snacks

Approximate Energy (kcal)	Carbohydrate Servings Per Meal Per Day	Carbohydrate Servings Per Snack Per Day (if desired)
1,200-1,500 (for weight loss)	3 (45 g)	1 (15 g)
1,600-2,000 (for weight control)	4 (60 g)	1-2 (15-30 g)
2,100-2,400 (for active individuals)	5 (75 g)	1-2 (15-30 g)

- The amount of carbohydrate can be adjusted based on determination of what is acceptable for the individual to follow long-term and optimal for blood glucose goals. The RDN is responsible for using this information about the patient's clinical condition, meal planning, and lifestyle habits and for establishing treatment goals to determine a realistic plan for nutrition therapy (ADA, 2017).
- Carbohydrate "counts" are based on the exchange system for diabetes meal planning where 1 carbohydrate serving = 15 g carbohydrate. Foods with 6 g-10 g carbohydrate per serving are considered a 0.5 carbohydrate serving and should be included in the total for the meal.
- The amount of carbohydrate is divided between meals and snacks. Per-meal and per-snack quantities may vary but are consistent day to day for individual meals. For example, carbohydrate content at breakfast is the same day to day but may be more or less than the amount of carbohydrate at lunch and dinner.
- **No foods are omitted** from the consistent carbohydrate meal plan unless a different medical condition necessitates the exclusion of certain foods or nutrients.

- **Sugar-sweetened items are allowed** as part of the carbohydrate source at meals or snacks. Regular desserts should be allowed on a consistent carbohydrate meal plan. If desired, portion sizes can be modified to meet carbohydrate goals.
- All sources of carbohydrates should be included in meal carbohydrate goals, including starches, grains, fruits, dairy, legumes/pulses, vegetables, sauces, commercial thickeners (for dysphagia), breadings, desserts, snacks, and so on. For good health, carbohydrate intake from vegetables, fruits, whole grains, legumes, and dairy products should be served versus other carbohydrate sources, especially those that contain added fats, sugars, and sodium.
- Use of non-nutritive sweeteners has the potential to reduce overall energy and carbohydrate intake if substituted for natural sweeteners (sugar, honey) and there is no compensation via intake of additional energy from other foods sources.
- The Exchanges for Diabetes Meal Planning Chart and NCM Exchanges for Diabetes Caloric Intake Calculator are helpful resources in menu planning.

Exchanges for Diabetes Meal Planning Chart				
Food Group	Carbohydrate (g)	Protein (g)	Fat (g)	Energy (kcal)
Starches (approx. ½ cup or 1-ounce slice bread)	15	3	0-1	80
Fruit (one small fruit or ½ cup)	15	0	0	80
Milk (1 cup)				
Skim	12-15	8	0-1	90
Low Fat	12-15	8	5	120
Whole	12-15	8	8	150

Other carbohydrates	15	Varies	Varies	–
Vegetables (½ cup cooked, 1 cup raw)	5	2	–	25
Meat (approx. 1 oz)		7	0-1	
Very lean	–	7	3	35
Lean	–	7	5	55
Medium Fat	–	7	8	75
High Fat	–			100
Fat	–	–	5	45

See Choose Your Food Lists for comprehensive exchange lists to use for individualization of patient diets. See the Exchanges for Diabetes Caloric Intake calculator for assistance determining energy and macronutrient intake from serving sizes.

Indications: No specific dietary pattern is recommended for the management of diabetes (ADA, 2017). However, this diet may be ordered to assist with regulating blood sugar in people with diabetes or hyperglycemia. Many House/Regular diets meet the requirements for consistent carbohydrate meal plans and can be further modified by the RDN to fit a patient's individual needs without the addition of this therapeutic diet order. There are few long-term studies in older adults demonstrating benefits of intensive glycemic, blood pressure, and lipid control (ADA, 2015); this may warrant the liberalization of the diet order to House/Regular for some patients.

Consistent carbohydrate meal plans are preferred by many health care facilities as they facilitate matching the prandial insulin dose to the amount of carbohydrate consumed, improving blood glucose control (ADA, 2017). Patients who benefit from carbohydrate control or who choose to follow eating patterns of consistent (or limited) carbohydrates may also prefer to follow a consistent carbohydrate diet regardless of the presence of diabetes or hyperglycemia. Individuals with uncontrolled blood glucose levels or elevated hemoglobin A1c levels, or those receiving insulin as part of their diabetes treatment therapy, may benefit from this diet while under the care of a health care facility. The RDN should work with the medical team and patient to determine the best nutrition care plan.

Nutritional Adequacy: The consistent carbohydrate diet is adequate in energy, macronutrients, and micronutrients. This diet is appropriate for long-term use and meets the Recommended Dietary Allowances/Dietary Reference Intakes for all ages.

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Grain foods including whole grains: whole wheat, barley, rye, buckwheat, corn, teff, quinoa, millet, amaranth, brown or wild rice, sorghum, and oats</p> <p>Processed grains such as pasta, rice, hot and cold cereals, bread, snacks and sweets that are flour-based (cakes, cookies) and made from whole grains</p>	Portions of grain foods that exceed individualized patient goals for carbohydrates.
Protein Foods	<p>Fresh or frozen red meat: lean, trimmed cuts of beef, pork, or lamb</p> <p>Fresh or frozen poultry: skinless chicken or turkey</p> <p>Fresh, frozen, or canned seafood: fish (particularly fatty fish: salmon, herring, and sardines), shrimp, lobster, clams, and scallops</p> <p>Eggs</p> <p>Nuts and seeds: peanuts, almonds, pistachios, and sunflower seeds, unsalted; peanut butter, almond butter,</p>	Portions of protein foods that exceed individualized patient goals for saturated fat and sodium.

	<p>and sunflower seed butter, reduced sodium.</p> <p>Soy foods: tofu, tempeh, or soynuts</p> <p>Meat alternatives: veggie burgers and sausages from plant protein without added sodium</p> <p>Legumes: such as dried beans, lentils, or peas at least a few times per week in place of other protein sources, unsalted</p>	
Dairy	<p>Low-fat or fat-free milk, yogurt, cottage cheese, and cheeses</p> <p>Fortified soymilk, almond milk, rice milk, hemp milk, coconut milk</p> <p>Frozen desserts made from low-fat milk</p>	Portions of dairy foods that exceed individualized patient goals for carbohydrates and fats.
Vegetables	Fresh, frozen, and canned whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables; low-sodium vegetable juices	Starchy vegetable intake that exceed individualized patient goals for carbohydrates.
Fruits	Fresh, frozen, canned and dried whole unsweetened fruits canned fruit packed in water or fruit juice without added sugar; 100% fruit juice	Portions of fruits that exceed individualized patient goals for carbohydrates.

Oils	<p>Unsaturated vegetable oils: Almond, Avocado, Canola, Cashew, Corn, Grapeseed, Olive, Safflower, Sesame, Soybean, Sunflower</p> <p>Margarines and spreads which list liquid vegetable oil as the first ingredient and does not contain trans fats (partially hydrogenated oil)</p> <p>Salad dressing and mayonnaise made from unsaturated vegetable oils</p>	Portions of fats and oils that exceed individualized patient goals for fats.
Other	<p>Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients</p> <p>Sauces</p> <p>Seasonings</p> <p>Spices</p>	Portions of prepared foods that exceed individualized patient goals for carbohydrates.
Beverages	<p>Coffee</p> <p>Tea</p> <p>Water, ice</p> <p>100% fruit juice</p> <p>Nutritional supplements</p>	

Consistent Carbohydrate Sample 1-Day Menu

Meal	Menu
Breakfast	<p>1 slice whole grain toast (1 carbohydrate serving)</p> <p>1 teaspoon trans fat-free margarine</p> <p>1 egg omelet</p> <p>1 orange (1 carbohydrate serving)</p> <p>6 ounces low-fat, plain Greek yogurt (1 carbohydrate serving)</p>

Lunch	2 ounces turkey breast 2 slices whole grain bread (2 carbohydrate servings) Lettuce and tomato salad 1 small apple (1 carbohydrate serving) 1 cup cucumber slices (0.5 carbohydrate serving)
Dinner	3 ounces baked chicken 1 cup baked, mashed sweet potato (2 carbohydrate serving) ½ cup cooked broccoli 1 large green salad 1 cup fat-free skim milk (1 carbohydrate serving) 1 cup fresh raspberries (1 carbohydrate serving)
Snack	1 tablespoon nuts ½ cup ice cream (1 carbohydrate serving) 1¼ cups strawberries (1 carbohydrate serving)

Menu Nutrient Analysis

- Carbohydrate Counting for People with Diabetes
- Carbohydrate Counting for Vegetarians with Diabetes
- Type 1 Diabetes Nutrition Therapy
- Type 2 Diabetes Nutrition Therapy
- Gluten-Free Carbohydrate Counting for People with Celiac Disease and Diabetes
- Gestational Diabetes Nutrition Therapy

Heart-Healthy (Cardiac) Diet

Definition: The Heart-Healthy diet limits the amount of saturated fat (<7% total calories), cholesterol (<200 mg per day), and sodium (2000 mg per day), replacing these foods with heart-healthy unsaturated fats (not refined carbohydrates). Foods with trans fats are eliminated. This therapeutic diet promotes whole grains, fruits, vegetables, low-fat or fat-free dairy, and unsaturated fats (Sacks, 2017; Jacobson, 2015; Eckel, 2014). Includes 20 g – 30 g fiber per day and 5-10 g of soluble fiber per day.

Indications: The Heart-Healthy diet is indicated for the prevention and treatment of cardiovascular disease. This includes conditions such as coronary artery disease, coronary artery bypass graft, myocardial infarction, stroke, dyslipidemia, and heart failure.

Nutritional Adequacy: This diet has meets the Dietary Reference Intakes (DRIs) for macronutrients and micronutrients.

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Grain foods including whole grains: whole wheat, barley, rye, buckwheat, corn, teff, quinoa, millet, amaranth, brown or wild rice, sorghum, and oats</p> <p>Processed whole grains such as pasta, rice, hot and cold cereals, snacks and sweets (cakes, cookies) that contain less than 300 mg sodium per serving</p> <p>Whole grain bread, crackers, rolls, or pita with <80 mg sodium per slice (Note: yeast breads usually have less sodium than those made with</p>	<p>Breakfast cereals, packaged baked goods, snack crackers, and prepared grains with more than 300 mg sodium per serving</p> <p>Biscuits, cornbread, and other “quick” breads prepared with baking soda</p> <p>Breads or crackers topped with salt</p> <p>Bakery products, such as doughnuts, biscuits, croissants, danish pastries, pies, cookies</p> <p>Instant potatoes, noodles, rice, stuffing mix, or macaroni and cheese</p> <p>Snacks made with partially hydrogenated oils, including</p>

	<p>sodium than those made with baking soda), Home-made bread made with reduced-sodium baking soda</p>	<p>chips, cheese puffs, snack mixes, regular crackers, butter-flavored popcorn</p> <p>Prepackaged bread crumbs</p> <p>Self-rising flours</p>
Protein Foods	<p>Fresh red meat: lean, trimmed cuts of beef, pork, or lamb</p> <p>Fresh poultry: skinless chicken or turkey</p> <p>Fresh seafood: fish (particularly fatty fish: salmon, herring), shrimp, lobster, clams, and scallops</p> <p>Eggs (2-4 per week), eggwhites or egg substitute</p> <p>Nuts and seeds (unsalted): peanuts, almonds, pistachios, and sunflower seeds, unsalted; peanut butter, almond butter, and sunflower seed butter, reduced sodium.</p> <p>Soy foods: tofu, tempeh, or soynuts</p> <p>Meat alternatives: veggie burgers and sausages from plant protein without added sodium</p> <p>Legumes: such as dried</p>	<p>Meats high in saturated fat such as ribs, t-bone steak, regular 70/30 hamburger</p> <p>Processed red meats, such as bacon, sausage, ham, pepperoni, hot dogs, corned beef, cured or smoked meats, canned meat, chili, vienna sausage, sardines, and spam with added sodium</p> <p>Deli meats, such as pastrami, bologna, or salami (made of meat or poultry) with added sodium</p> <p>Organ meat such as liver, gizzards, or sweetbread</p> <p>Preseasoned and precooked meats</p> <p>Poultry with skin or processed poultry (chicken and turkey) with skin, breading, or high-sodium marinades or sauces</p> <p>Whole eggs or egg yolks (greater than 5 per week)</p> <p>Fried meat, poultry, or fish</p> <p>Smoked fish and meats</p> <p>Salted legumes, nuts, seeds, or nut/seed butters</p> <p>Meat alternatives with high</p>

	Legumes, such as dried beans, lentils, or peas at least a few times per week in place of other protein sources, unsalted	levels of sodium (>300 mg per serving) or saturated fat (>5 g per serving)
Dairy	<p>Skim, ½% or 1% milk, yogurt, cottage cheese, and low-sodium cheeses (Swiss cheese, ricotta cheese, and fresh mozzarella, low sodium cottage cheese, cream cheese)</p> <p>Fortified soymilk, almond milk, rice milk, hemp milk, coconut milk</p> <p>Frozen desserts (½ cup) made from low-fat milk</p>	<p>Whole milk, 2% fat milk, or Buttermilk</p> <p>Cream, half-&-half</p> <p>Cream cheese, sour cream</p> <p>Regular and processed cheese or sauces</p> <p>Regular-sodium cottage cheese</p>
Vegetables	Fresh, frozen, and canned (unsalted) whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables without added sauces, salt, or sodium; low-sodium vegetable juices	<p>Canned or frozen vegetables with salt, fresh vegetables prepared with salt, butter, cheese, or cream sauce</p> <p>Pickled vegetables such as olives, pickles, or sauerkraut</p> <p>Tomato or pasta sauce with high levels of salt (>300 mg per serving)</p> <p>Fried vegetables</p>
Fruits	Fresh, frozen, canned and dried whole unsweetened fruits canned fruit packed in water or fruit juice without added sugar; 100% fruit juice	None
Oils	<p>Unsaturated vegetable oils: Almond, avocado, canola, cashew, corn, grapeseed, olive, safflower, sesame, soybean, sunflower</p> <p>Margarines and spreads which list liquid vegetable oil</p>	<p>Solid shortening or partially hydrogenated oils</p> <p>Solid margarine made with hydrogenated or partially hydrogenated oils or trans fat</p> <p>Salted margarine that contains trans fats</p>

	<p>as the first ingredient and does not contain trans fats (partially hydrogenated oil)</p> <p>Salad dressings made from oil</p> <p>Avocado</p>	<p>Butter (salted or unsalted)</p> <p>Salad dressings with trans fat or high levels of sodium (Ranch, blue cheese, French, Italian)</p> <p>Tropical oils (coconut, palm, palm kernel oils)</p>
Other	<p>Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients and contain <600 mg sodium.</p> <p>Homemade soups, casseroles, entrees, and side dishes typically contain less sodium than prepared alternatives.</p> <p>Homemade soups and sauces such as gravy</p> <p>Low-sodium crackers, chips, pretzels</p> <p>Low-sodium seasonings (ketchup, BBQ)</p> <p>Spices, herbs, Salt-free seasoning mixes and marinades</p> <p>Vinegar</p> <p>Lemon or lime juice</p>	<p>Sugary and/or fatty desserts, candy, and other sweets</p> <p>Canned soups</p> <p>Frozen meals and prepared sides that are >600 mg of sodium</p> <p>Store-bought egg beaters (with added sodium)</p> <p>Salts: sea salt, kosher salt, onion salt, and garlic salt, seasoning mixes containing salt</p> <p>Flavorings: bouillon cubes, catsup or ketchup, barbeque sauce, Worcestershire sauce, soy sauce, salsa, relish, teriyaki sauce</p>

Beverages	Coffee	
	Tea	
	Water, ice	
	100% fruit juice	
	Nutritional supplements	

Nutrient Analysis

Heart-Healthy Eating Nutrition Therapy

Heart-Healthy Consistent Carbohydrate Nutrition Therapy

Cardiac- TLC Nutrition Therapy

Sodium-Restricted Diet

Overview: The sodium-restricted diet is composed of fluids and foods with limited sodium content; these foods can consist of foods with naturally low levels of sodium or foods that have been produced in such a way that they contain less sodium. Foods allowed in this diet consist of whole, unprocessed foods, as sodium is often present in foods that have been highly processed. Many facilities use the House/Regular diet and modify the foods served in order to meet the sodium restriction.

The 2015-2020 US Dietary Guidelines recommends limiting sodium to less than 2,300 mg per day (USDHHS/USDA, 2015). Many institutions offer meal plans with varying degrees of sodium restriction to meet the needs of clients with unique disease states and dietary requirements. Commonly offered sodium-restricted modifications appear below. The most “liberal” sodium diet is the House/Regular diet followed by the modifications of “no salt packet”, “no added salt” (NAS) (3 g to 4 g sodium), and “low-sodium” (1.5 g to 2 g sodium), respectively.

The degree of sodium restriction should be based on many factors, including age, relevant diseases or conditions being treated, and priority of liberalized diet approach to encourage adequate energy intake. The RDN will individualize this based on the patient’s needs and medical conditions. A more liberalized approach to sodium intake than what is recommended in the US Dietary Guidelines (<2,300 mg per day) may benefit many in the aging population. Because of the emphasis on reducing sodium in the general population, it is anticipated that the term “No added salt” (NAS) diet may evolve to a more specific reduced sodium level diet in future years.

When assessing which level of sodium restriction would benefit a patient, consider their history of sodium intake, current diseases or conditions, usual eating patterns and products consumed, and patient's interest in adhering to the sodium restriction. For example, for “adults with heart failure (as defined as NYHA Classes I - IV/AHA Stages B, C and D),” the RDN should individualize sodium intake, within the ranges of 2000 - 3000 mg sodium per day. Research reports that a sodium intake of 2000 - 3000 mg per day resulted in improvements in quality measures, renal function and clinical laboratory measures, symptom burden, and body weight” (AND EAL, 2017).

In the setting of a health care facility, there are multiple ways to meet these individual needs for reduced sodium intake. The following are multiple sodium-modified diets to choose from:

“No Salt Shaker” or “No Salt Packet”

Definition: The “No Salt Shaker” or “No Salt Packet” modification is the most liberal sodium-restricted diet to use when salt restriction is indicated. This diet uses the House/Regular diet/menu and eliminates the presence of salt packets on meal trays and salt shakers at the table. This diet may help improve meal acceptability and consumption. Patients should be educated

to choose lower-sodium options on the menu to help further reduce sodium intake when indicated. Salt substitutes should not be used without a physician's order because of their potassium content. Though it is not assigned a specific sodium limit, sodium content is reduced as extraneous salt is removed from the meal plan. The exact amount of sodium on this diet will vary depending on foods served/chosen on a given day, whether foods served are processed or fresh, and the recipes used for preparation.

No Added Salt (NAS), 3-4g Sodium

- **Definition:** This diet comprises a mild sodium restriction that contains 3 g-4 g sodium per day. This diet is more palatable than more restrictive sodium-controlled diets and helps improve meal acceptability and consumption. Because of the emphasis on reducing sodium in the general population, it is anticipated that the term “No added salt” (NAS) diet may evolve to a more specific reduced sodium level diet in future years. The No Added Salt modification requires additional menu planning and patient education. Salt substitutes should not be used without a physician's order because of their potassium content. Foods from the list below as well as the “high sodium” foods in the Sodium Content of Foods handout should be limited.

Tips:

- Prepare facility soups, entrees, casseroles, and side dishes from scratch to control the level of added sodium.
- Limit canned soups, frozen entrees, and prepared sides such as coleslaw, twice baked potatoes, and packaged seasoned rice and noodles.
- Sodium content of prepared entrees should comprise 600 mg sodium or less.
- Limit processed and cured meats such as sausage, hot dogs, ham, and corned beef and offer lower-sodium options at all meals.
- Read labels of preseasoned and precooked meats to evaluate added sodium content.
- Use seasonal fresh or frozen vegetables more often than canned.
- Eliminate foods that contain visible salt such as various chips, crackers, pretzels, and nuts.

- Consider purchasing lower-sodium versions of frequently desired items such as crackers.

Low-Sodium (1.5 g-2 g Sodium, 1500- 2000 mg Sodium) Diet

- **Definition:** This is the strictest sodium-restricted diet, which only permits 1.5 g-2 g or 1500 mg-2000 mg sodium each day. This diet requires substitution of standard menu items with low-sodium options in order to achieve sodium limitation goals. Because this diet may be less palatable to patients, they should be educated as to how it may improve breathing and reduce fluid retention. Review lower-sodium options with the patient to maximize food preferences. Foods allowed and not allowed on this diet are described below. Avoid serving foods “high” and “moderate” in sodium content as defined by the Sodium Content of Foods handout.

Indication: Adults with cardiovascular disease, heart failure, kidney disease, or those presenting with edema may benefit from sodium restriction of varying degrees, depending on medical conditions and clinical status. The recommendation to limit sodium intake to less than 2,300 mg per day is based on evidence suggesting that increased sodium intake increases blood pressure in adults (EAL, 2010). Limited evidence suggests an association between increased sodium intake and increased risk of cardiovascular disease in adults (EAL, 2014). All adults diagnosed with prehypertension and hypertension would benefit from lowering blood pressure, and further sodium reduction to 1,500 mg per day can result in even greater blood pressure reduction (Eckel, 2013). Even without reaching the lower limits for sodium intake, strong evidence indicates that a reduction in sodium intake can lower blood pressure among people with prehypertension and hypertension (Eckel, 2013). Reduction in sodium intake

to 2000 mg to 3000 mg sodium per day has also been shown effective in patients with NYHA Classes I - IV/AHA Stages B, C and D heart failure (EAL, 2017).

Nutritional Adequacy: The sodium-restricted diet is adequate in energy, macronutrients, and micronutrients. This diet is appropriate for long-term use and meets the Recommended Dietary Allowances (RDA)/Dietary Reference Intakes (DRI) for all ages.

Food Group	Foods Recommended	Foods Not Recommended
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Grains	<p>Grain foods including whole grains: whole wheat, barley, rye, buckwheat, corn, teff, quinoa, millet, amaranth, brown or wild rice, sorghum, and oats</p> <p>Processed grains such as pasta, rice, hot and cold cereals, bread, snacks and sweets that are flour-based (cakes, cookies) and made from whole grains that contain less than 300 mg sodium per serving</p> <p>Bread with <80 mg sodium per slice (Note: yeast breads usually have less sodium than those made with baking soda), Home-made bread made with reduced-sodium baking soda</p> <p>Cold cereals: especially shredded wheat and puffed rice options Hot cereal: Oats, grits, or cream of wheat</p>	<p>Breakfast cereals, packaged baked goods, snack crackers, and prepared grains with more than 300 mg sodium per serving</p> <p>Biscuits, cornbread, and other “quick” breads prepared with baking soda</p> <p>Prepackaged bread crumbs</p> <p>Self-rising flours</p>
	<p>Fresh red meat: lean, trimmed cuts of beef, pork, or lamb</p> <p>Fresh poultry: skinless chicken or turkey</p> <p>Fresh seafood: fish (particularly fatty fish: salmon, herring), shrimp, lobster, clams, and scallops</p>	<p>Processed red meats, such as bacon, sausage, ham, pepperoni, hot dogs, chili, vienna sausage, sardines, and spam with added sodium</p> <p>Processed poultry (chicken and turkey) with skin, breading, or high-sodium marinades or sauces</p>

Protein Foods	<p>Eggs</p> <p>Nuts and seeds (unsalted): peanuts, almonds, pistachios, and sunflower seeds, unsalted; peanut butter, almond butter, and sunflower seed butter, reduced sodium.</p> <p>Soy foods: tofu, tempeh, or soynuts</p> <p>Meat alternatives: veggie burgers and sausages from plant protein without added sodium</p> <p>Legumes: such as dried beans, lentils, or peas at least a few times per week in place of other protein sources, unsalted</p>	<p>Preseasoned and precooked meats</p> <p>Deli meats, such as pastrami, bologna, or salami (made of meat or poultry) with added sodium</p> <p>Smoked fish and meats</p> <p>Salted legumes, nuts, seeds, or nut/seed butters</p> <p>Meat alternatives with high levels of sodium or saturated fat</p>
Dairy	<p>Low-fat or fat-free milk, yogurt, cottage cheese, and low-sodium cheeses (Swiss cheese, ricotta cheese, and fresh mozzarella, low sodium cottage cheese, cream cheese)</p> <p>Fortified soymilk, almond milk, rice milk, hemp milk, coconut milk</p> <p>Frozen desserts (½ cup) made from low-fat milk</p>	<p>Buttermilk</p> <p>Regular and processed cheese or sauces</p> <p>Regular-sodium cottage cheese</p>
	<p>Fresh, frozen, and canned (unsalted) whole vegetables,</p>	<p>Canned or frozen vegetables with salt, fresh vegetables prepared with salt</p> <p>Portions of starchy</p>

Vegetables	including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables without added sauces, salt, or sodium; low-sodium vegetable juices	<p>vegetables that exceed individualized patient goals for carbohydrates</p> <p>Pickled vegetables such as olives, pickles, or sauerkraut</p> <p>Tomato or pasta sauce with high levels of salt or sugar</p>
Fruits	Fresh, frozen, canned and dried whole unsweetened fruits canned fruit packed in water or fruit juice without added sugar; 100% fruit juice	None
Oils	<p>Unsaturated vegetable oils: Almond, avocado, canola, cashew, corn, grapeseed, olive, safflower, sesame, soybean, sunflower</p> <p>Margarines and spreads which list liquid vegetable oil as the first ingredient and does not contain trans fats (partially hydrogenated oil)</p>	<p>Solid shortening or partially hydrogenated oils</p> <p>Solid margarine made with hydrogenated or partially hydrogenated oils</p> <p>Salted margarine that contains trans fats; salted butter</p>
	<p>Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients and contain <600 mg sodium.</p> <p>Homemade soups, casseroles, entrees, and side dishes typically contain less sodium than prepared alternatives.</p> <p>Homemade soups and sauces such as gravy</p>	<p>Sugary and/or fatty desserts, candy, and other sweets</p> <p>Salty snacks and snacks that use seasonings that contain salt such as chips, crackers, and pretzels</p> <p>Canned soups</p> <p>Frozen meals and prepared sides that are >600 mg of sodium</p>

Other	<p>Low-sodium crackers, chips, pretzels</p> <p>Low-sodium seasonings (ketchup, BBQ)</p> <p>Spices, herbs, Salt-free seasoning mixes and marinades</p> <p>Vinegar</p> <p>Lemon or lime juice</p>	<p>Store-bought egg beaters (with added sodium)</p> <p>Salts: sea salt, kosher salt, onion salt, and garlic salt, seasoning mixes containing salt</p> <p>Flavorings: bouillon cubes, catsup or ketchup, barbeque sauce, Worcestershire sauce, soy sauce, salsa, relish, teriyaki sauce</p> <p>Salad dressings: Ranch, blue cheese, Italian, and French</p> <p>Portions of prepared foods that exceed individualized patient goals for carbohydrates</p>
Beverages	<p>Coffee</p> <p>Tea</p> <p>Water, ice</p> <p>100% fruit juice</p> <p>Nutritional supplements</p>	

See Sodium-Free Flavoring Tips to assist with menu planning. Avoid or limit foods in the “high sodium” lists, found in the Sodium (Salt) Content of Foods handout.

Sodium-Restricted Sample 1-Day Menu (1500 mg/1.5 g sodium)

Meal	Menu
Breakfast	<p>1 cup reduced-fat (1%) milk</p> <p>1 medium banana</p> <p>1 slice whole wheat bread, toasted</p> <p>1 tablespoon peanut butter</p>

Morning Snack	½ cup dried cranberries
Lunch	½ cup roasted or grilled chicken (without skin) 1 cup salad greens 5 crackers, saltines, fat-free, low-sodium Fruit plate with: 1/4 cup strawberries ½ sliced orange 1 peach half
Afternoon Snack	½ low sodium turkey sandwich with: 1 slice whole wheat bread 1 slice low-sodium turkey
Dinner	3 ounces herb-baked fish 1 baked potato 2 teaspoon margarine (trans fat-free) Sliced tomatoes ½ cup cooked broccoli 3-inch square angel food cake with: 2 fresh strawberries
Snack	5 low-sodium saltine crackers 2 tablespoons salt-free peanut butter

Menu Nutrient Analysis

Low Sodium Nutrition Therapy

Sodium-Free Flavoring Tips

Sodium Content of Foods

Lower-Sodium Foods List

Fluid Restriction Diet

Definition: This diet order limits the amount of fluid provided to a patient over the course of an entire day. Most foods are still allowed in this diet, but extra planning is required to coordinate appropriate serving sizes of foods and liquids throughout the day. Note: items that are traditionally considered “foods” may be considered liquids for this diet.

What counts as a fluid? A fluid is anything that is liquid or anything that would melt if left at room temperature. Some examples include:

- Coffee, tea, and other hot beverages
- Gelatin ($\frac{1}{2}$ cup = $\frac{1}{2}$ cup fluid = 4 oz)
- Gravy
- Ice cream, sherbet, sorbet ($\frac{1}{2}$ cup = $\frac{1}{2}$ cup fluid = 4 oz)
- Ice cubes, ice chips (1 cup = $\frac{1}{2}$ cup fluid = 4 oz)
- Milk, liquid creamer
- Nutritional supplements
- Popsicles (1 twin stick = $\frac{1}{4}$ cup fluid = 2 oz)
- Vegetable and fruit juices; fluid in canned fruit
- Watermelon
- Yogurt
- Soft drinks, lemonade, limeade
- Soups
- Syrup

Fluid restrictions are ordered in milliliters or liters but often converted to household measurements for patient use (as these units tend to be more familiar).

Household Fluid Volume Equivalents		
2 tablespoons	1 ounce	30 mL
$\frac{1}{4}$ cup	2 ounces	60 mL
$\frac{1}{2}$ cup	4 ounces	120 mL
$\frac{3}{4}$ cup	6 ounces	180 mL
1 cup	8 ounces	240 mL

Fluid Volume Conversions			
Milliliters (mL)	Liters (L)	Ounces (oz)	Cups (c)
1000	1	34	4
1200	1.2	40	5

1500	1.5	50	6 ½
1800	1.8	60	7 ½
2000	2	67	8 1/3

Refer to tables below and the interactive NCM Metric Converter Calculator for a convenient unit conversion tool.

Tips for Processing a Diet Order with a Fluid Restriction

- Determine how to distribute total fluids throughout the day:
 - Consider the number of medications the patient takes and at how many medication passes. Allocate fluids for each time the patient will take pills.
 - Agree on amount of fluid reserved for distribution of medication and nourishments/snacks
 - Include liquid supplements if ordered or if planned to be ordered as a factor in determining distribution
 - Subtract fluids reserved for medications from total daily fluid amount and divide between 3 shifts
 - Example: 1500 mL fluid restriction – 500 mL for medications
 - 200 mL for 7am-3pm shift; 200 mL for 3pm-11pm shift; 100 mL for 11pm-7am shift
 - Clarify diet order with ordering physician and nursing staff per facility policy to determine amount of fluid available for nutrition services
 - Example: 1500 mL fluid restriction: 1000 mL dietary trays and 500 mL nursing/snacks as 200 mL 7am-3pm; 200 mL 3pm-11pm; 100 mL 11pm-7am.
- Review fluid preferences for taking medications at mealtime and at snack times.
- Once fluid preferences are obtained and the patient is educated regarding the requirements of the fluid restriction, a meal pattern can be set up with the fluids distributed appropriately
- Staff, patients, family, and caregivers should be taught the conversion

from liters and milliliters to household measurements. They also should know the volume of cups, glasses, and bowls commonly used in their setting.

Fluid Restriction Guide

1000 mL Fluid Restriction

MEAL	EXAMPLE 1	EXAMPLE 2	EXAMPLE 3
Breakfast	8 ounces/240 mL 4 ounces/120 mL	8 ounces/240 mL	8 ounces/240 mL 4 ounces/120 mL
Lunch	8 ounces/240 mL	8 ounces/240 mL	4 ounces/120 mL 6 ounces/180 mL (soup)
Evening Meal	8 ounces/240 mL	8 ounces/240 mL	4 ounces/120 mL
DIETARY =	840 mL	720 mL	780 mL
NURSING =	160 mL	280 mL	220 mL

1200 mL Fluid Restriction

MEAL	EXAMPLE 1	EXAMPLE 2	EXAMPLE 3
Breakfast	8 ounces/240 mL 4 ounces/120 mL	8 ounces/240 mL	8 ounces/240 mL 4 ounces/120 mL

Lunch	8 ounces/240 mL	8 ounces/240 mL	4 ounces/120 mL
Evening Meal	8 ounces/240 mL	8 ounces/240 mL 6 ounces/180 mL (soup)	8 ounces/240 mL
DIETARY =	840 mL	900 mL	720 mL
NURSING =	360 mL	300 mL	480 mL

1500 mL Fluid Restriction

MEAL	EXAMPLE 1	EXAMPLE 2	EXAMPLE 3
Breakfast	8 ounces/240 mL 4 ounces/120 mL	8 ounces/240 mL 4 ounces/120 mL	8 ounces/240 mL 8 ounces/240 mL
Lunch	8 ounces/240 mL 4 ounces/120 mL	8 ounces/240 mL 4 ounces/120 mL	8 ounces/240 mL 8 ounces/240 mL
Evening Meal	6oz/180mL (soup) 4 ounces/120 mL	8 ounces/240 mL 4 ounces/120 mL	8 ounces/240 mL
DIETARY =	1020 mL	1080 mL	1200 mL
NURSING =	480 mL	420 mL	300 mL

Indication: A fluid restriction may be ordered in addition to a sodium restriction to help maintain fluid balance in clients with congestive heart failure, hypertension, fluid retention, pulmonary edema and renal failure. A Fluid restriction may also be ordered to control hyponatremia.

This therapeutic diet may be used on a short-term or long-term basis. Evaluate the intent of this therapeutic diet and monitor the effectiveness routinely. Fluid restriction diet orders often need to be adjusted or discontinued depending on the medical intention, fluid weight changes, actual intake, and patient's diet follow-through.

See Water Content of Foods and Fluid-Restricted Nutrition Therapy for more information on individualizing fluid restrictions for patients with related conditions.

Nutritional Adequacy: The fluid-restricted diet order modifies the amount of fluid a patient is receiving. Refer to the diet order (eg, House/Regular, consistent carbohydrate) to determine if the diet is adequate in energy, macronutrients, and micronutrients.

Note: Foods Recommended and Not Recommended are not provided for the fluid-restricted diet order, as this diet pertains only to the amount of fluid given to a patient. Refer to the patient's diet order to determine which foods are appropriate.

Meal	Menu
Breakfast	1 slice wheat toast ½ cup yogurt (120 mL) ½ cup blueberries 1 tablespoon peanut butter 1 cup low-fat or fat-free milk (240 mL)
Lunch	3 ounces sliced turkey 2 slices whole wheat bread 1/4 cup lettuce for sandwich 2 slices tomato for sandwich 1 ounce reduced-fat, reduced-sodium cheese ½ cup fresh carrot sticks 1 banana 1 cup unsweetened tea (240 mL)
Dinner	8 ounces soup (240 mL) 3-ounce baked salmon with basil ½ cup quinoa 1 cup green beans 1 cup mixed greens salad with 1 tablespoon olive oil 1 whole wheat dinner roll

	1 teaspoon margarine (for roll) 1 cup coffee (240 mL)
Snack	½ cup sliced peaches ½ cup frozen yogurt (120 mL) 1 cup water (240 mL)

Menu Nutrient Analysis

Fluid Restricted Nutrition Therapy

Definition: Renal diets restrict specific nutrients based on the severity of renal failure and current treatment methods. Nutrients that are restricted in renal diets include protein, sodium, potassium, phosphorus, and water (and, thus, fluids in general). These additional restrictions must be specified to accompany the renal diet order. Consult a registered dietitian nutritionist (RDN) to determine if additional restrictions (such as fluid or protein) are required and outweigh the risk of malnutrition due to overrestriction. Furthermore, other medical conditions may necessitate further diet restrictions beyond just renal restrictions (eg, consistent carbohydrate intake for diabetes). The diet is based on a house/regular diet or low-sodium diet and further modified to fit the potassium, phosphorus, fluid, and protein needs of the patient.

Indication: Assessment by the registered dietitian nutritionist (RDN) will determine the need for modification in protein, sodium, potassium, phosphorus, and fluid based on individual needs, stage of renal failure, and treatment methods. Evidence of hyperkalemia, hyperphosphatemia, and edema may suggest the necessity for renal diet restrictions. Patients who are dialyzed or who are not on dialysis have varying nutrition requirements based on these treatment options. Individualization is required (NKF KDOQI, 2000), but because electrolytes may be very well controlled with renal replacement therapy, a liberalized diet may be appropriate.

Note: Malnutrition can develop during the course of chronic kidney disease and may be related to increased morbidity and mortality for those with renal failure (EAL, 2008). Inadequate protein and inadequate energy intake are critical causes of malnutrition in chronic kidney disease, yet protein restriction may be beneficial in select individuals based on renal function (particularly those who are not receiving dialysis). Minimizing renal impairment while preventing malnutrition can present a challenge. Diet orders should be liberalized as much as possible to maximize oral intake and quality of life.

Nutritional Adequacy: Foods commonly restricted in renal diets include those high in sodium, potassium, phosphorus, protein, and calcium. Renal diets may intentionally restrict to thresholds below Dietary Reference Intake (DRI) recommendations for medical management of renal disease. Individualization is necessary, and the RDN can carefully plan the diet to meet approximately 75% of the DRI and supplement with appropriate micronutrients, when required. The nutrient ranges below can be used as a guide to plan a balanced renal diet plan:

- Energy: 1800 kcal - 2200 kcal
- Protein: 15%-30% total energy
- Phosphorus: 700 mg - 1000 mg
- Potassium: 2000 mg- 4700 mg
- Sodium: 1500 mg-4000 mg
- Water/Fluid: 1500 mL-3000 mL

Liberal Renal Diet Modifications

Menu planning for the patient with renal disease needs to be individualized based on clinical status and patient choice. Balance between patient choice, improving clinical status, and quality of life needs to be achieved. The most liberal diet for the patient is often the most accepted and may allow for more food choices, which encourages intake, and prevent malnutrition. Individualization by the RDN is required. When working with clients with renal disease, the RDN should evaluate the need for dietary restrictions based on laboratory values and current treatment strategies to avoid unnecessary restriction of nutrients. Individual restrictions such as “low sodium,” “low potassium,” and “low phosphorus” can be applied to a house/regular diet (D'Alessandro, 2015).

The following resources will assist in identifying and planning liberalized renal diets:

Calcium Content of Foods, Phosphorus Content of Foods, Potassium Content of Foods, Protein Content of Foods, Sodium-Free Flavoring Tips, Sodium Content of Foods, Water Content of Common Foods and Beverages

Renal Diet

This strict renal diet limits sodium, fluid, phosphorus, potassium, and protein. A renal multivitamin may be required to meet nutrient needs.

Food Group	Foods Recommended	Foods Not Recommended
<p>Grains</p> <p>May require further restriction (1500 mg-2000 mg sodium per day) for fluid management</p>	<p>Whole grains including whole wheat, barley, rye, buckwheat, corn, teff, quinoa, millet, amaranth, brown and wild rice, sorghum, and oats;</p> <p>Choose grain products, such as bread, rolls, prepared breakfast cereals, crackers, and pasta made from whole grains</p>	<p>None</p>
<p>Protein Foods</p> <p>May require further restriction (<60g/day) for</p>	<p>Fresh or frozen red meat, including lean, trimmed cuts of beef, pork, or lamb</p> <p>Fresh or frozen poultry, including skinless chicken or turkey</p> <p>Fresh, frozen, or canned seafood, including fish (salmon, herring, and sardines), shrimp, lobster, clams, and scallops</p> <p>Eggs and egg substitutes</p> <p>Nuts and seeds, such as peanuts, almonds, pistachios, and sunflower seeds</p>	<p>Processed red meats, such as bacon, sausage, and ham</p> <p>Deli meats, such as pastrami, bologna, or salami (made of meat or poultry)</p>

impaired renal function and not on renal replacement therapy	<p>Nut and seed butters, such as peanut butter, almond butter, and sunflower seed butter*</p> <p>Soy foods, such as tofu, tempeh, or soynuts</p> <p>Meat alternatives, such as veggie burgers, and sausages based on plant protein</p> <p>Legumes, such as dried beans, lentils, or peas*</p> <p>* Nuts and seeds are high in phosphorus and potassium; patient should be counseled regarding portion sizes</p>	<p>Processed meat alternatives with high levels of sodium or saturated fat</p>
<p>Dairy</p> <p>May require further restriction (<10-17 mg/kg/day) for hyperphosphatemia (NKF, 2015)</p>	<p>Low-fat or fat-free milk, yogurt (low in added sugars, cottage cheese, and cheeses</p> <p>Frozen desserts made from low-fat milk</p> <p>Fortified soymilk</p> <p>*Limit milk to 4 ounces daily</p>	<p>Greater than 4 ounces of milk daily</p> <p>High sodium cheeses or cheese sauces</p>
	<p>Fresh, frozen, and canned (unsalted) whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables; low-sodium vegetable juices</p> <p>Low-potassium and</p>	<p>Canned or frozen vegetables with salt, fresh vegetables prepared with salt</p> <p>High-potassium vegetables: Artichokes, avocado, bamboo shoots</p>

<p>Vegetables</p> <p>Limit to <2000 mg potassium per day</p>	<p>moderate-potassium vegetables: Alfalfa sprouts, asparagus, bamboo shoots (canned), bean sprouts, beets (canned), broccoli, cabbage, carrots, cauliflower, celery, corn, cucumber, endive, eggplant, green beans, kale, lettuce, mixed vegetables, mushrooms, onions, peas, peppers, radishes, summer squash, turnips, water chestnuts (canned), watercress, zucchini</p>	<p>(fresh, raw), beets (fresh), brussels sprouts, chard greens (such as beet, collard, and mustard), kohlrabi, okra, parsnips, potatoes, pumpkins, rutabagas, spinach, sweet potatoes, tomatoes, tomato sauce or puree, low-sodium tomato juice or v-8 juice, wax beans, winter squashes yams</p>
<p>Fruits</p> <p>Limit to <2000 mg potassium per day</p>	<p>Fresh, frozen, canned and dried whole unsweetened fruits, canned fruit packed in water or fruit juice without added sugar</p> <p>Low and moderate potassium fruits: Apples, apple juice, applesauce apricot nectar, blackberries blueberries, cantaloupe, cherries, cranberries cranberry juice and cranberry juice cocktails, figs, fruit cocktail, gooseberries, grapes, grape juice, grapefruit, grapefruit juice, lemons, lemon juice, limes, lime juice, mango and mango nectar, papayas, peaches (canned), peach nectar, peaches (fresh), pears (fresh), pear nectar, pineapple, plums, raspberries, rhubarb, strawberries, tangerine, watermelon</p> <p>100% fruit juice such as apple or cranberry</p>	<p>High-potassium fruits: Apricots Bananas, dates, honeydew melon, kiwifruit, nectarine, orange, orange juice, prune juice, prunes, raisins,</p>

Oils	Unsaturated vegetable oils, including olive, peanut, and canola oils; margarines and spreads, which list liquid vegetable oil as the first ingredient and does not contain trans fats (partially hydrogenated oil); salad dressing and mayonnaise made from unsaturated vegetable oils	<p>Solid shortening or partially hydrogenated oils</p> <p>Solid margarine made with hydrogenated or partially hydrogenated oils</p> <p>Margarine that contains trans fats; butter</p>
<p>Beverages</p> <p>May require further restriction (<2000 mg/day) for hyperkalemia</p> <p>May require further restriction (<1500-3000 mL/day) for fluid management</p>	Coffee, tea (unsweetened), water, 100% fruit juice	<p>Sweetened drinks, including sweetened coffee or tea drinks, soda, energy drinks, and sports drinks</p> <p>Drinks with phosphate additives including flavored waters, iced tea, soda, and other bottled beverages.</p> <p>Volumes of fluid in beyond recommended fluid restriction</p>
Other	Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients	<p>Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from ingredients not recommended.</p> <p>Salt packet/added salt during meals; salt substitutes</p>

Tips for Lowering Potassium Content of Vegetables

- Soaking some vegetables lowers potassium level: Peel and cut into pieces that are approximately 1/8 inch thick. Rinse and soak them in warm water for at least 2 hours. Use approximately 10:1 ratio of water to vegetables. Drain and rinse vegetables under warm water and then boil for 5 minutes.
- If there is no restriction on potatoes for the individual: Soaked potatoes that are sliced or grated and soaked in water prior to serving

can be made into several dishes. For instance, they can be oven fried, mashed, boiled, home fried with onions, or scalloped. Soaking potatoes in large amount of room temperature water prior to cooking reduces potassium content of food.

Despite the intentional, individual restrictions of a renal diet, these meal plans can still have adequate energy, macronutrients, and micronutrients. For patients who must eliminate an extensive number of foods from the diet, diet intervention and customization by an RDN is needed to ensure the diet is nutritionally adequate. This diet is appropriate for long-term use and meets the Recommended Dietary Allowances/Dietary Reference Intakes for all ages.

Coordination of Care with Dialysis Center:

Communication between the facility and dialysis center is essential for the patient to achieve nutrition goals. This may routinely include review of laboratory data, diet acceptance, diet tolerance, and need for diet modifications. See Dialysis Communication Form for a template for managing this communication.

Meals and snacks may be sent with the patient to dialysis depending on the dialysis center's policy. Larger snacks or an alternate meal schedule may be needed if the dialysis center does not allow food. Sample transportable foods include the following:

Transportable Foods for Dialysis Patients					
Sandwich	Vegetable	Fruit	Beverage	Snack	Dessert
Egg salad	Carrot sticks Cucumber slices Celery sticks Green pepper slices	Apple Applesauce Fruit cocktail Grapes Peaches Pear Pineapple Plum	Ginger ale Cranberry juice Pineapple juice Grape juice Apple juice	Graham crackers Unsalted popcorn Hard candy	Butter cookies
Roast beef					Shortbread cookies
Roasted pork					Gingersnaps
Chicken					Vanilla wafers
Chicken salad					Plain cupcake (vanilla, yellow, lemon)
Turkey					Pound cake
Turkey salad					Angel food
Tuna salad					
Meatloaf					
Cream					

cheese with jelly					cake
Bagel with cream cheese					

Meal	Menu
Breakfast	½ cup cranberry juice 1 egg 2 slices toast with 2 teaspoons of jelly 1 cup coffee
Lunch	Turkey sandwich: 2 slices bread 3 ounces sliced turkey (low-sodium) 1 lettuce leaf 2 teaspoons mayonnaise ½ cup cucumber salad with 1 tablespoon of oil and vinegar 1 medium apple 1 cup lemonade
Dinner	3 ounces broiled fish ½ cup rice ½ cup green beans 1 cup lettuce salad with 1 tablespoon oil and vinegar 1 dinner roll with 2 teaspoons margarine ½ cup canned peaches 1 cup iced tea
Snack	1 slice pound cake ½ cup orange gelatin

Menu Nutrient Analysis

Acute Kidney Injury Nutrition Therapy

Chronic Kidney Disease Stage 5 Nutrition Therapy

General Food Allergy Guidelines

Food allergies are an abnormal immunologic response to a harmless food protein, include IgE (immunoglobulin E)-mediated and non-IgE-mediated allergic responses. An allergic reaction is caused by the immune system responding to what it perceives as an invader; physiologic responses to food allergies vary widely but can be life-threatening in some cases (FARE, 2017). A food intolerance, on the other hand, does not involve the immune system (AAAAI, 2016). A physician can help differentiate whether a patient has an intolerance or an allergy. Both food allergies and intolerances require that foods be eliminated from the diet. The eight foods that account for 90% of significant allergies in adults were identified in the Food Allergen Labeling and Consumer Protection Act (FALCPA), which passed in 2004: milk, eggs, wheat, soy, fish, crustacean shellfish, peanuts, and tree nuts (FDA, 2015). Vigilance is required in monitoring food ingredients to prevent a reaction to a food allergen or intolerance, as it only takes a trace amount to trigger a reaction in some people (CDC, 2015).

A food avoidance diet is indicated once a food allergy or intolerance has been evaluated and diagnosed by the medical team.

Keeping Your Facility and Patients Safe
<p>Strict avoidance of the allergy-causing food is the only way to avoid a food allergy reaction. In a health care setting, the responsibility shifts to health care staff members to identify and inform the appropriate network of individuals about their patients' food allergies and provide safe meals.</p> <ul style="list-style-type: none">• Food allergies can be managed in all facilities with proper training and education.• Policies and procedures need to outline each staff person's role and involvement in keeping the patient safe; if your institution does not have such policies and procedures in place, they must be developed.• The allergist or gastroenterologist will determine extent and severity of food allergy or intolerance, respectively. Consider that reported food allergies may be a preference or food preference vs actual food allergy. Use the Food Allergy Questionnaire to identify these key differences.• Food allergy awareness in-services with foodservice, nursing, and other staff are recommended.

- Since food may be served in nontraditional settings—for example, in settings that may not be managed by dining services, such as community rooms and rec rooms— or be brought in from outside parties, it is necessary to identify all individuals who need to be informed and educated about the food allergies of each patient in attendance:
 - Therapists (occupational, physical, speech, etc.)
 - Ancillary staff (music, art, recreation, and other teachers, etc.)
 - Consultants (psychology, hospice)
 - Administrative staff
 - Physicians
 - Roommates/roommates' family members
 - Patient's family/visitors
 - Volunteers

It is critical to avoid potential sources of cross-contact in the kitchen. Cross-contact occurs when a non-allergenic food comes into contact with an allergenic food. This contact may result in the formerly safe food absorbing and containing some proteins of the allergenic food. The following precautions are necessary to prevent cross-contact in kitchen environments:

- Prepare allergen-free food first, cover it, label it, and remove it from the cooking area before preparing allergen-containing foods.
- Use hot, soapy water to clean kitchen surfaces, cutting boards, and utensils. Soap and water or commercial wipes will remove a food allergen. Sanitizing gels or water alone will not remove an allergen.
- If possible, maintain a separate allergy-free food preparation station. Wash kitchen countertops often, including immediately before and after food preparation.
- Clean toaster oven rack often and consider the option of using commercially available reusable toaster bags. Alternatively, use a separate toaster strictly for allergen-free food.
- Use squeeze bottles for condiments whenever possible. Avoid inserting into a condiment jar a knife or other utensil that previously contacted foods containing the allergen proteins.
- Do not reuse frying oil if a food containing the allergen was fried in that oil.
- Use colored stickers for easy identification of allergen-free foods
- Store allergen-free food on separate shelves in the refrigerator and pantry, with allergen-free food on shelves above allergen-containing foods.
- An allergen-free meal should be wrapped and/or covered to prevent accidental cross-contact via spill/splash.
- When delivering allergen-free meals, they should be placed above all other foods in the meal delivery cart or carried alone, directly from the kitchen to the patient.
- Wash hands thoroughly and put on a fresh pair of gloves before preparing

an allergen-free meal.

- Do not attempt to make a food allergen-free by picking out the allergen (eg, removing croutons from a salad), as this will not make it safe for the patient to consume. The person with the food allergy will need a new meal prepared.
- Consider using foil (wrapping 2 times) to prepare allergen-free foods that are grilled. If you use a grill, be sure to fully clean the grill before cooking for the patient with food allergy.

Label Reading Tips for Health Care Facilities:

FALCPA requires manufacturers to label their product when one of the eight major food allergens is an ingredient. Processed foods and similar varieties of a food type can vary greatly in their ingredients. Always look at the ingredient list to identify sources of food allergens. When it's not clear if a food contains an allergen, call the manufacturer. For convenience, facilities should consider keeping a list of contact information for food manufacturers. See Food Vendor Log for a sample list.

Ingredients must be listed on the label if they are present in any amount, even in colors, flavors, or spice blends. Manufacturers must list the specific nut (eg, almond, walnut, or cashew) or seafood (eg, tuna, salmon, shrimp, or lobster) that is present in the food.

To identify food allergens using a food label, look for the following identifiers:

- The food is listed in the precautionary "contains" statement.
 - Example: "Contains: egg, wheat, milk, and soy."

OR

- The food ingredient is listed in parentheses
 - Example: "albumen (egg)"

OR

- The food allergen appears in bold type in the list of ingredients
 - Ex: “Ingredients: Enriched flour (**wheat** flour), whey (**milk**), **eggs**, lecithin (**soy**)...”

Note: Allergen labeling requirements do not currently apply to nonfood items such as shampoo, medication, and alcohol.

More information about “may contain” statements:

- The use of advisory labeling (ie, precautionary statements such as “may contain,” “processed in a facility that also processes,” or “made on equipment with”) is voluntary and optional for manufacturers.
- There are no laws governing or requiring these statements, so they may or may not indicate if a product contains a specific allergen.
- According to the US Food and Drug Administration’s guidance to the food industry regarding “may contain” statements, advisory labels “should not be used as a substitute for adhering to current good manufacturing practices and must be truthful and not misleading.”

Responsibilities of the Health Care Facility

- Provide a menu (daily/weekly) in which all items served to the patient have been reviewed based on the cross-contact guidelines.
- Train all foodservice staff to read product labels and recognize the nomenclature of food allergens accurately.
- Read labels of ingredients used to prepare food.
- Monitor for cross-contact during the preparation of the food. Monitoring includes salad bars or other publicly accessible sources of food.
- Contact the manufacturer when it is unclear if a food or ingredient contains an allergen.
 - In your inquiry to a food manufacturer, be specific:
 - Does your product include peanuts?
 - Is there a risk of cross-contact with peanuts in your food manufacturing process?

- Prior to preparing and serving the product, staff should confirm the ingredient information on the actual label of the product.

Nutritional Adequacy: Despite the intentional, individual restrictions of a food allergy or food intolerance diet, these meal plans can still have adequate energy, macronutrients, and micronutrients. This diet is appropriate for long term use and meets the Recommended Daily Allowances/Dietary Reference Intakes for all ages.

Resources for Health Care Facilities:

- USDA's National Agricultural Library Food and Nutrition Information Center
- Food Allergies and Intolerances Resource List for Consumers
- Centers for Disease Control (CDC) Food Allergies Publications and Resources
- The National Institute of Health (NIH) Allergy and Infectious Diseases
- Food Allergy Research and Education (FARE)
- Nutrition.gov Food Allergies and Intolerances
- Food Allergy Training Guide for Hospitals and Food Service Staff

Corn Allergy

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Grain foods including whole grains: whole wheat, barley, rye, buckwheat, teff, quinoa, millet, amaranth, brown or wild rice, sorghum, and oats. Grain foods must not be made from corn, corn flour, cornstarch, corn grits, hominy, maize, or any other ingredients that contain corn.</p> <p>Processed grains such as pasta, rice, hot and cold cereals, bread, snacks and sweets that are flour-based (cakes, cookies) and made from whole grains except corn.</p>	<p>Grain foods made from corn, corn flour, cornstarch, corn grits, hominy, maize, or any other ingredients that contain corn.</p>
Protein Foods	<p>Fresh or frozen red meat (beef, pork, or lamb), poultry (chicken or turkey), seafood (fish, shrimp, lobster, clams, and scallops)</p> <p>Eggs</p> <p>Nuts and seeds: peanuts, almonds, pistachios, and sunflower seeds, unsalted; peanut butter, almond butter, and sunflower seed butter</p>	<p>Prepared meats, poultry, and fish flavored or seasoned with corn ingredients. All protein foods prepared with ingredients that contain corn</p> <p>Fried meats, poultry, or fish that contain corn or corn ingredients.</p> <p>Deli meats, such as pastrami, bologna, or salami (made of meat or poultry) that contain corn or corn</p>

	<p>and sunflower seed butter, reduced sodium.</p> <p>Soy foods: tofu, tempeh, or soynuts</p> <p>Meat alternatives: veggie burgers and sausages from plant protein without corn or corn ingredients.</p> <p>Legumes: such as dried beans, lentils, or peas</p>	<p>ingredients.</p> <p>Salted legumes, nuts, seeds, or nut/seed butters that contain corn or corn ingredients.</p> <p>Meat alternatives that contain corn or corn ingredients.</p>
Dairy	<p>Low-fat or fat-free milk, yogurt, cottage cheese, and cheeses prepared without ingredients derived from corn</p> <p>Fortified Soymilk, almond milk, rice milk, hemp milk, coconut milk without ingredients derived from corn</p> <p>Frozen desserts made from low-fat milk without ingredients derived from corn</p>	<p>Dairy products with ingredients derived from corn such as flavored milk sweetened with corn syrup</p>
Vegetables	<p>Fresh, frozen, and canned (unsalted) whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables except corn or any other vegetables that have been prepared with ingredients that contain corn; low-sodium vegetable juices</p>	<p>Canned, fresh, or frozen corn or other vegetables prepared with ingredients that contain corn</p>
Fruits	<p>Fresh, frozen, canned and dried whole unsweetened fruits canned fruit packed in water or fruit juice without added sugar: 100% fruit juice</p>	<p>Any frozen, or dried fruits prepared with corn ingredients. Canned fruit and juice that contain corn syrup or high-fructose corn syrup. All fruits prepared with ingredients that contain</p>

		corn.
Oils	<p>Unsaturated vegetable oils: Almond, avocado, canola, cashew, grapeseed, olive, safflower, sesame, soybean, sunflower except corn or those from ingredients that contain corn</p> <p>Margarines and spreads which list liquid vegetable oil as the first ingredient and do not contain trans fats (partially hydrogenated oil) or ingredients made from corn</p> <p>Salad dressing and mayonnaise made from unsaturated vegetable oils that do not contain ingredients made from corn</p>	All fats, oils, and salad dressings that contain corn ingredients
Other	<p>Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients</p> <p>Sauces</p> <p>Seasonings</p> <p>Spices</p>	
Beverages	<p>Coffee</p> <p>Tea</p> <p>Water, ice</p> <p>100% fruit juice</p> <p>Nutritional supplements</p>	

Corn Allergy Sample 1- Day Menu

Meal	Menu
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Breakfast	1 cup low-fat milk 1 hard-boiled egg 1 small banana 1 cup oatmeal
Morning Snack	1 cup mixed fresh berries 6 ounce plain yogurt (check labels for corn products)
Lunch	1 cup low-fat milk 1 cantaloupe wedge 2 teaspoons mayonnaise 2 slices rye bread (check label for corn products) 3 ounce turkey 1 tablespoon olive oil and vinegar 1 large mixed green salad
Afternoon Snack	3 celery sticks 3 carrot sticks
Dinner	2 teaspoons dipping oil (made with olive oil and herbs) 1 whole wheat dinner roll ½ cup stir-fried vegetables 1 sweet potato 4 ounces baked fish with herbs 1 cup broth-based soup
Snack	½ cup applesauce

Menu Nutrient Analysis

Corn Allergy Nutrition Therapy

Egg Allergy

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Grain foods including whole grains: whole wheat, barley, rye, buckwheat, teff, corn, quinoa, millet, amaranth, brown or wild rice, sorghum, and oats prepared without egg ingredients.</p> <p>Processed grains such as pasta, hot and cold cereals, bread, snacks and sweets that are flour-based (cakes, cookies) and made from whole grains and do not contain egg or egg ingredients.</p> <p>Plain, unflavored, and unseasoned rice</p>	<p>Grain foods made from egg or any other ingredients that contain egg such as egg bread, egg rolls, challah, egg matzoh, egg noodles.</p>
Protein Foods	<p>Fresh or frozen red meat (beef, pork, or lamb), poultry (chicken or turkey), or seafood (fish, shrimp, lobster, clams, or scallops)</p> <p>Nuts and seeds: peanuts, almonds, pistachios, and sunflower seeds, unsalted; peanut butter, almond butter, and sunflower seed butter</p>	<p>Prepared meats, poultry, and fish flavored or prepared with egg ingredients.</p> <p>Eggs, egg whites, egg yolks, egg substitutes or foods prepared with ingredients made from egg.</p>

	<p>Soy foods: tofu, tempeh, or soynuts</p> <p>Meat alternatives: veggie burgers and sausages from plant protein without egg ingredients</p> <p>Legumes: such as dried beans, lentils, or peas</p>	<p>Deli meats, such as pastrami, bologna, or salami (made of meat or poultry) that contain egg ingredients</p> <p>Meat alternatives that contain egg or egg ingredients.</p>
Dairy	<p>Low-fat or fat-free milk, yogurt, cottage cheese, and cheeses prepared without egg ingredients</p> <p>Fortified soymilk, almond milk, rice milk, hemp milk, coconut milk</p> <p>Frozen desserts made from low-fat milk without egg ingredients</p>	<p>Dairy products containing or prepared from ingredients that contain egg</p>
Vegetables	<p>Fresh, frozen, and canned whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables; low-sodium vegetable juices</p>	<p>Canned or frozen vegetables prepared with ingredients that contain egg</p>
Fruits	<p>Fresh, frozen, canned and dried whole unsweetened fruits canned fruit packed in water or fruit juice without added sugar; 100% fruit juice</p>	<p>Any frozen, or dried fruits prepared with egg ingredients.</p>
Oils	<p>Unsaturated vegetable oils: Almond, avocado, canola, cashew, grapeseed, olive, safflower, sesame, soybean, sunflower</p> <p>Margarines and spreads which list liquid vegetable oil as the first ingredient and do not contain trans fats</p>	<p>All fats, oils, salad dressings, and mayonnaise that contain egg ingredients</p>

	(partially hydrogenated oil) or ingredients made from egg Salad dressing made from unsaturated vegetable oils that do not contain ingredients made from egg	
Other	Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients and that do not contain ingredients made from egg. Sauces Seasonings Spices	Fried foods that contain egg or are made from egg ingredients
Beverages	Coffee Tea Water, ice 100% fruit juice Nutritional supplements	Eggnog

Egg Allergy Sample 1- Day Menu

Meal	Menu
Breakfast	1 cup oatmeal 1 small banana 2 slices bacon 1 cup low-fat milk
Morning Snack	6 ounce low-fat yogurt 3 graham crackers
Lunch	1 large mixed green salad 2 tablespoons oil and vinegar dressing 3 ounce turkey 2 slices rye bread

	1 cantaloupe wedge
	1 cup low-fat milk
Afternoon Snack	4 carrot sticks
	4 celery slices
Dinner	1 cup pea soup
	4 ounce baked pork chop
	1 sweet potato
	½ cup stir-fried vegetables
	1 whole wheat roll
	2 teaspoons margarine
Snack	½ cup applesauce
	Hot tea

Menu Nutrient Analysis

Egg Allergy Nutrition Therapy

Fish Allergy

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Grain foods including whole grains: whole wheat, barley, rye, buckwheat, teff, quinoa, millet, corn amaranth, brown or wild rice, sorghum, and oats made without fish ingredients.</p> <p>Processed grains such as pasta, hot and cold cereals, bread, snacks and sweets that are flour-based (cakes, cookies) and made from whole grains unless they are prepared with ingredients that contain fish.</p> <p>Plain, unflavored, and unseasoned rice</p>	<p>Grains prepared with ingredients that contain fish or fish ingredients.</p>
Protein Foods	<p>Fresh or frozen red meat (beef, pork, or lamb), poultry (chicken or turkey), or seafood (shrimp, lobster, clams, and scallops)</p> <p>Eggs</p> <p>Nuts and seeds: peanuts, almonds, pistachios, and sunflower seeds, unsalted; peanut butter, almond butter, and sunflower seed butter</p>	<p>Prepared meats, poultry flavored or prepared with fish ingredients.</p> <p>Fresh, frozen, or canned fish or products made with ingredients that contain fish</p>

	<p>Soy foods: tofu, tempeh, or soynuts</p> <p>Meat alternatives: veggie burgers and sausages from plant protein without</p> <p>Legumes: such as dried beans, lentils, or peas</p>	<p>Fried fish</p> <p>Meat alternatives that contain fish ingredients.</p>
Dairy	<p>Low-fat or fat-free milk, yogurt, cottage cheese, and cheeses prepared without ingredients derived from fish</p> <p>Fortified soymilk, almond milk, rice milk, hemp milk, coconut milk</p> <p>Frozen desserts made from low-fat milk without ingredients derived from fish</p>	<p>Dairy products containing or prepared from ingredients that contain fish such as milk products advertised as high in omega-3 may have added fish oil</p>
Vegetables	<p>Fresh, frozen, and canned (unsalted) whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables; low-sodium vegetable juices</p>	<p>Canned, fresh, or frozen vegetables prepared with ingredients that contain fish</p>
Fruits	<p>Fresh, frozen, canned and dried whole unsweetened fruits canned fruit packed in water or fruit juice without added sugar; 100% fruit juice</p>	<p>Any frozen, or dried fruits prepared with fish ingredients.</p>
	<p>Unsaturated vegetable oils: Almond, avocado, canola, cashew, grapeseed, olive, safflower, sesame, soybean, sunflower</p> <p>Margarines and spreads which list liquid vegetable oil</p>	<p>All fats, oils, and salad dressings that contain fish ingredients such as Caesar salad dressing</p>

Oils	<p>do not contain trans fats (partially hydrogenated oil) or ingredients made from fish</p> <p>Salad dressing and mayonnaise made from unsaturated vegetable oils that do not contain ingredients made from fish</p>	
Other	<p>Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients and that do not contain ingredients made from fish</p> <p>Sauces</p> <p>Seasonings</p> <p>Spices</p>	<p>Salt and seasonings that contain salt or ingredients made from fish</p> <p>Worcestershire sauce</p> <p>Fish stock</p> <p>Fish broth</p> <p>Seafood flavoring</p> <p>Surimi or artificial crab or “sea legs” (these are made from fish)</p> <p>Caponata (may contain anchovies)</p> <p>Shellfish chowder</p> <p>Asian fish sauces</p> <p>Fried foods that contain fish or are made from fish ingredients</p>
Beverages	<p>Coffee</p> <p>Tea</p> <p>Water, ice</p> <p>100% fruit juice</p> <p>Nutritional supplements</p>	<p>Beverages (juice, milk) with added fish oils</p>

Fish Allergy Sample 1- Day Menu

Meal	Menu
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Breakfast	1 cup low-fat milk 1/3 cup fresh raspberries 2 tablespoons maple syrup 2 pancakes
Morning Snack	1 peach Water
Lunch	2 eggs, for egg salad sandwich 1 tablespoon mayonnaise 2 slices whole-wheat bread 1 cup homemade vegetable soup 1 cup low-fat milk
Afternoon Snack	1 oatmeal cookie ½ cup low-fat milk
Dinner	2 ounce hamburger 1 hamburger bun 1 ounce cheddar cheese 1 tablespoon ketchup Tomato slices Cucumber slices ½ cup broccoli ½ cup watermelon Water

Menu Nutrient Analysis

Fish Allergy Nutrition Therapy

Milk Allergy

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Grain foods including whole grains: whole wheat, barley, rye, buckwheat, teff, corn, quinoa, millet, amaranth, brown or wild rice, sorghum, and oats made without milk or milk ingredients.</p> <p>Processed grains such as pasta, hot and cold cereals, bread, snacks and sweets that are flour-based (cakes, cookies) and made from whole grains unless they are prepared without milk or milk ingredients</p> <p>Plain, unflavored, and unseasoned rice</p>	<p>Grain foods made with milk or any other ingredients that contain milk or milk ingredients.</p>
Protein	<p>Fresh or frozen red meat (beef, pork, or lamb), poultry (chicken or turkey), or seafood (fish, shrimp, lobster, clams, and scallops)</p> <p>Eggs</p> <p>Nuts and seeds: peanuts, almonds, pistachios, and sunflower seeds, unsalted; peanut butter, almond butter,</p>	<p>Prepared meats, poultry, and fish flavored or prepared with milk ingredients.</p> <p>Fried meats, poultry, or fish made with milk ingredients</p>

Foods	<p>and sunflower seed butter</p> <p>Soy foods: tofu, tempeh, or soynuts</p> <p>Meat alternatives: veggie burgers and sausages from plant protein without milk ingredients</p> <p>Legumes: such as dried beans, lentils, or peas</p>	<p>Meat alternatives with high levels of sodium or saturated fat or that contain milk or milk ingredients.</p>
Dairy	<p>Fortified Soymilk, almond milk, rice milk, hemp milk, coconut milk</p>	<p>Dairy products containing or prepared from ingredients that contain milk including all types of milk, butter, cream, half and half, custards, ghee, ice cream, yogurt, curds, hydrolysate, whey protein), lactalbumin, lactalbumin phosphate, lactoglobulin, lactoferrin, milk derivatives (milk powder, milk solids, nonfat milk solids, nonfat dry milk, rennet casein), whey (all forms: cured whey, lactose-free whey, demineralized whey, sweet dairy whey, whey protein concentrate, whey powder, whey solids) sour cream.</p>
Vegetables	<p>Fresh, frozen, and canned (unsalted) whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables prepared without milk ingredients; low-sodium vegetable juices</p>	<p>Canned or frozen vegetables prepared with ingredients that contain milk</p> <p>Vegetables in cream sauce or cheese sauce</p>

Fruits	Fresh, frozen, canned and dried whole unsweetened fruits canned fruit packed in water or fruit juice without added sugar, prepared without milk ingredients; 100% fruit juice	Any fresh, frozen, or dried fruits prepared with milk ingredients.
Oils	<p>Unsaturated vegetable oils: Almond, avocado, canola, cashew, grapeseed, olive, safflower, sesame, soybean, sunflower</p> <p>Margarines and spreads which list liquid vegetable oil as the first ingredient and do not contain trans fats (partially hydrogenated oil) or ingredients made from milk</p> <p>Salad dressing and mayonnaise made from unsaturated vegetable oils that do not contain ingredients made from milk</p>	<p>All fats, oils, and salad dressings that contain milk ingredients</p> <p>Butter</p>
Other	<p>Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients and that do not contain ingredients made from milk</p> <p>Sauces</p> <p>Seasonings</p> <p>Spices</p> <p>Cocoa butter</p> <p>Calcium lactate</p> <p>Oleoresin</p> <p>Cream of tartar</p> <p>Lactic acid (although lactic acid starter culture may contain milk)</p> <p>Flavoring extracts</p> <p>Gelatin</p> <p>Honey</p>	<p>Sugary and/or fatty desserts, candy, and other sweets; salt and seasonings that contain salt or ingredients made from milk</p> <p>Fried foods that contain milk or are made from milk ingredients</p>

	Jam, jelly, marmalade, and preserves Sugar Maple syrup	
Beverages	Coffee Tea Water, ice 100% fruit juice Nutritional supplements without milk or ingredients that contain milk	Beverages that contain milk or ingredients made from milk Goat's milk, sheep's milk, and other mammalian milks and their products Recaldent (an ingredient in whitening chewing gum) Simplesse (a fat substitute)

Milk Allergy Sample 1- Day Menu

Meal	Menu
Breakfast	1 cup oatmeal 1 banana 1 hard-boiled egg 1 cup fortified soy milk
Morning Snack	3 graham crackers 6 ounce soy yogurt (not made with milk ingredients)
Lunch	1 large mixed green salad 1 tablespoon olive oil and vinegar dressing 3 ounce roast beef 2 slices rye bread 2 teaspoons mayonnaise 1 cantaloupe wedge 1 cup (8 ounces) fortified rice milk
Afternoon Snack	4 carrot sticks 4 celery sticks

Dinner	1 cup bean soup 4 ounce baked fish with herbs 1 sweet potato ½ cup stir-fried vegetables 1 whole-wheat roll 2 teaspoons margarine (non-milk ingredients)
Evening Snack	½ cup applesauce

Menu Nutrient Analysis

Milk Allergy Nutrition Therapy

Peanut Allergy

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Grain foods including whole grains: whole wheat, barley, rye, buckwheat, teff, quinoa, millet, corn amaranth, brown or wild rice, sorghum, and oats made without peanut ingredients.</p> <p>Processed grains such as pasta, hot and cold cereals, bread, snacks and sweets that are flour-based (cakes, cookies) and made from whole grains unless they are prepared with ingredients that contain peanuts.</p> <p>Plain, unflavored, and unseasoned rice</p>	<p>All grains made with peanuts or ingredients made from peanuts</p> <p>Sweetened, low-fiber breakfast cereals</p> <p>Packaged (high sugar, refined ingredients) baked goods</p> <p>Snack crackers and chips made of refined ingredients, cheese crackers, butter crackers</p> <p>Breads made with refined ingredients and saturated fats, such as biscuits, frozen waffles, sweet breads, doughnuts, pastries, packaged baking mixes, pancakes, cakes, and cookies</p>
	Fresh or frozen red meat:	<p>Prepared meats, poultry, and fish flavored or prepared with peanut ingredients.</p> <p>Marbled or fatty red meats (beef, pork, lamb), such as</p>

Protein Foods	<p>lean, trimmed cuts of beef, pork, or lamb</p> <p>Fresh or frozen poultry: skinless chicken or turkey</p> <p>Fresh, frozen, or canned seafood: fish (particularly fatty fish: salmon, herring, and sardines), shrimp, lobster, clams, and scallops</p> <p>Eggs</p> <p>Nuts and seeds: almonds, pistachios, and sunflower seeds, unsalted; almond butter, and sunflower seed butter, reduced sodium.</p> <p>Soy foods: tofu, tempeh, or soynuts</p> <p>Meat alternatives: veggie burgers and sausages from plant protein without added sodium</p> <p>Legumes: such as dried beans, lentils, or peas at least a few times per week in place of other protein sources, unsalted</p>	<p>ribs</p> <p>Fresh, frozen, or canned fish or products made with ingredients that contain peanuts</p> <p>Processed red meats, such as bacon, sausage, and ham</p> <p>Poultry (chicken and turkey) with skin</p> <p>Fried meats, poultry, or fish</p> <p>Deli meats, such as pastrami, bologna, or salami (made of meat or poultry)</p> <p>Peanuts, peanut butter, peanut flour mixed nuts, ground nuts, beer nuts, nut pieces, nutmeat, nu-nuts and other artificial nuts (such as mandelonas, which are peanuts that have been soaked in almond flavoring), chocolate-covered peanuts</p> <p>Salted legumes, nuts, seeds, or nut/seed butters</p> <p>Meat alternatives with high levels of sodium or saturated fat or that contain fish ingredients.</p>
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Dairy	<p>Low-fat or fat-free milk, yogurt, cottage cheese, and cheeses prepared without ingredients derived from peanut</p> <p>Fortified soymilk, almond milk, rice milk, hemp milk, coconut milk</p> <p>Frozen desserts made from low-fat milk without ingredients derived from peanut</p>	<p>Dairy products containing or prepared from ingredients that contain peanuts</p> <p>Whole milk, cream, cheeses made from whole milk, sour cream</p> <p>Yogurt or ice cream made from whole milk or with added sugar</p> <p>Cream cheese made from whole milk</p>
Vegetables	<p>Fresh, frozen, and canned (unsalted) whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables prepared without peanut ingredients; low-sodium vegetable juices</p>	<p>Canned, fresh, or frozen vegetables prepared with ingredients that contain peanuts</p> <p>Canned or frozen vegetables with salt, fresh vegetables prepared with salt</p> <p>Fried vegetables</p> <p>Vegetables in cream sauce or cheese sauce</p> <p>Tomato or pasta sauce with high levels of salt or sugar</p>
Fruits	<p>Fresh, frozen, canned and dried whole unsweetened fruits canned fruit packed in water or fruit juice without added sugar that do not</p>	<p>Any frozen, or dried fruits prepared with peanut ingredients.</p>

	added sugar that do not contain peanuts or peanut ingredients; 100% fruit juice	Fruits packed in syrup or made with added sugar
Oils	<p>Unsaturated vegetable oils: Almond, avocado, canola, cashew, grapeseed, olive, safflower, sesame, soybean, sunflower</p> <p>Margarines and spreads which list liquid vegetable oil as the first ingredient and do not contain trans fats (partially hydrogenated oil) or ingredients made from peanuts</p> <p>Salad dressing and mayonnaise made from unsaturated vegetable oils that do not contain ingredients made from peanuts</p>	<p>All fats, oils, and salad dressings that contain peanut ingredients such as arachis oil (may contain peanut protein); cold-pressed, expressed, expelled, or extruded peanut oils</p> <p>Solid shortening or partially hydrogenated oils</p> <p>Solid margarine made with hydrogenated or partially hydrogenated oils</p> <p>Margarine that contains trans fats; butter</p>
Other	<p>Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients and that do not contain ingredients made from peanuts</p> <p>Sauces</p> <p>Seasonings</p> <p>Spices</p>	<p>Sugary and/or fatty desserts, candy, and other sweets containing peanuts or peanut ingredients; salt and seasonings that contain salt or ingredients made from peanuts</p> <p>Fried foods that contain peanuts or are made from peanut ingredients</p>
Beverages	<p>Coffee</p> <p>Tea</p> <p>Water, ice</p> <p>100% fruit juice</p>	<p>Beverages (juice, milk) with added peanut ingredients</p> <p>Sweetened drinks such as, sweetened coffee or tea</p>

	100% fruit juice Nutritional supplements that do not contain ingredients made from peanuts	drinks, soda, energy drinks, and sports drinks
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Peanut Allergy Sample 1- Day Menu

Meal	Menu
Breakfast	1 cup oatmeal 1 small banana 1 hard-boiled egg 1 cup low-fat milk
Morning snack	6 ounce yogurt 3 graham crackers
Lunch	1 large mixed green salad 2 tablespoons olive oil and vinegar salad dressing 3 ounce turkey 2 slices rye bread 2 teaspoons mayonnaise 1 cantaloupe wedge 1 cup low-fat milk
Afternoon snack	4 carrot sticks 4 celery sticks
Dinner	1 cup bean soup 4 ounce meatloaf 1 sweet potato ½ cup stir-fried vegetables 1 whole-wheat roll 2 teaspoons margarine
Evening Snack	½ cup applesauce

Menu Nutrient Analysis

Peanut Allergy Nutrition Therapy

Shellfish Allergy

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Grain foods including whole grains: whole wheat, barley, rye, buckwheat, teff, quinoa, millet, corn amaranth, brown or wild rice, sorghum, and oats made without shellfish ingredients.</p> <p>Processed grains such as pasta, hot and cold cereals, bread, snacks and sweets that are flour-based (cakes, cookies) and made from whole grains unless they are prepared without shellfish ingredients</p> <p>Plain, unflavored, and unseasoned rice</p>	<p>Grain foods prepared with shellfish or with shellfish ingredients.</p>
	<p>Fresh or frozen red meat (beef, pork, or lamb), poultry (chicken and turkey), and fish,</p> <p>Eggs</p> <p>Nuts and seeds: peanuts, almonds, pistachios, and sunflower seeds, unsalted; peanut butter, almond butter, and sunflower seed butter</p>	<p>Shellfish such as shrimp, prawns mussels, lobster, crawfish, krill, crab, and barnacle.</p> <p>Mollusks may also be not recommended for some individuals. Mollusks include abalone, clams, cuttlefish, mussels, octopus, oysters, sea cucumber, sea urchin, scallops, snails, and squid.</p>

Protein Foods	<p>and sunflower seed butter, reduced sodium.</p> <p>Soy foods: tofu, tempeh, or soynuts</p> <p>Meat alternatives: veggie burgers and sausages from plant protein without added sodium</p> <p>Legumes: such as dried beans, lentils, or peas at least a few times per week in place of other protein sources</p>	<p>Prepared meats, poultry, and fish flavored or prepared with shellfish ingredients.</p> <p>Meat alternatives that contain shellfish ingredients.</p>
Dairy	<p>Low-fat or fat-free milk, yogurt, cottage cheese, and cheeses</p> <p>Fortified soymilk, almond milk, rice milk, hemp milk, coconut milk</p> <p>Frozen desserts made from low-fat milk</p>	<p>Dairy products containing or prepared from ingredients that contain shellfish</p>
Vegetables	<p>Fresh, frozen, and canned whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables; low-sodium vegetable juices</p>	<p>Canned, fresh, or frozen vegetables prepared with ingredients that contain shellfish</p>
Fruits	<p>Fresh, frozen, canned and dried whole unsweetened fruits canned fruit packed in water or fruit juice without added sugar; 100% fruit juice</p>	<p>Any frozen, or dried fruits prepared with shellfish ingredients.</p>

Oils	<p>Unsaturated vegetable oils: Almond, avocado, canola, cashew, corn, grapeseed, olive, safflower, sesame, soybean, sunflower</p> <p>Margarines and spreads which list liquid vegetable oil as the first ingredient and do not contain trans fats (partially hydrogenated oil) or ingredients made from shellfish</p> <p>Salad dressing and mayonnaise made from unsaturated vegetable oils that do not contain ingredients made from shellfish</p>	All fats, oils, and salad dressings that contain shellfish ingredients
Other	<p>Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients and that do not contain ingredients made from fish</p> <p>Sauces</p> <p>Seasonings</p> <p>Spices</p> <p>Carrageenan (this is a marine algae, not a shellfish, and is safe for those with shellfish allergy)</p>	<p>Seasonings that contain ingredients made from shellfish</p> <p>Fish stock Seafood flavoring Fish sauce</p> <p>Oyster sauce Shellfish chowder</p> <p>Fried foods that contain fish or are made from fish ingredients</p>
Beverages	<p>Coffee</p> <p>Tea</p> <p>Water, ice</p> <p>100% fruit juice</p> <p>Nutritional supplements</p>	

Shellfish Allergy Sample 1-Day Menu

Meal	Menu
Breakfast	1 cup oatmeal 1 hard-boiled egg 1 small banana 1 cup milk
Morning Snack	3 graham crackers 6 ounce yogurt
Lunch	1 large mixed green salad 1 tablespoon olive oil and vinegar dressing 3 ounce roast beef 2 slices whole-grain bread 2 teaspoons margarine 1 cantaloupe wedge
Afternoon snack	4 carrot sticks 4 celery sticks
Dinner	1 cup bean soup 4 ounce baked pork chop 1 sweet potato ½ cup stir-fried vegetables 1 roll 1 teaspoon margarine
Snack	½ cup applesauce Hot tea

Menu Nutrient Analysis

Shellfish Allergy Nutrition Therapy

Soy Allergy

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Grain foods including whole grains: whole wheat, barley, rye, buckwheat, teff, quinoa, millet, corn amaranth, brown or wild rice, sorghum, and oats made without soy ingredients.</p> <p>Processed grains such as pasta, hot and cold cereals, bread, snacks and sweets that are flour-based (cakes, cookies) and made from whole grains made without soy ingredients.</p> <p>Plain, unflavored, and unseasoned rice</p>	<p>Any grain food that is processed with soy or ingredients made from soy.</p> <p>Soy fiber, flour, grits, sprouts.</p>
	<p>Fresh or frozen red meat (beef, pork, or lamb), poultry (chicken or turkey), or seafood (fish, shrimp, lobster, clams, and scallops)</p> <p>Eggs</p> <p>Nuts and seeds: peanuts,</p>	<p>Prepared meats, poultry, and fish flavored or prepared with soy ingredients or marinated or pre-basted with a soy ingredient</p> <p>Processed red meats, such as bacon, sausage, ham, or reduced-fat frankfurters (containing added soy ingredients)</p>

Protein Foods	<p>almonds, pistachios, and sunflower seeds, unsalted; peanut butter, almond butter, and sunflower seed butter</p> <p>Meat alternatives: veggie burgers and sausages from plant protein without soy and ingredients that contain soy</p> <p>Legumes: such as dried beans, lentils, or peas (except soy or edamame)</p>	<p>Soy foods: tofu, tempeh, edamame, soynuts, textured vegetable protein, Soy protein (concentrate, hydrolyzed, isolate)</p> <p>·</p> <p>Meat alternatives with soy ingredients.</p> <p>Vegetarian and vegan products that contain soy ingredients</p>
Dairy	<p>Low-fat or fat-free milk, yogurt, cottage cheese, and cheeses prepared without ingredients derived from soy</p> <p>Fortified almond milk, rice milk, hemp milk, coconut milk</p> <p>Frozen desserts made from low-fat milk without ingredients derived from soy</p>	<p>Dairy products containing or prepared from ingredients that contain soy such as soymilk, soy yogurt, soy cheeses, or soy ice cream.</p> <p>Yogurt or ice cream made without soy ingredients</p>
Vegetables	<p>Fresh, frozen, and canned whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables; low-sodium vegetable juices</p>	<p>Canned, fresh, or frozen vegetables prepared with ingredients that contain soy or soy ingredients</p>
Fruits	<p>Fresh, frozen, canned and dried whole unsweetened fruits canned fruit packed in water or fruit juice without added sugar; 100% fruit juice</p>	<p>Any frozen, or dried fruits prepared with soy ingredients.</p>

Oils	<p>Unsaturated vegetable oils: Almond, avocado, canola, cashew, corn, grapeseed, olive, safflower, sesame, sunflower.</p> <p>Vegetable oils (including refined soy oil, which is considered safe for those with soy allergy)</p> <p>Vegetable oil spray without soy ingredients</p> <p>Margarines and spreads which list liquid vegetable oil as the first ingredient and do not contain trans fats (partially hydrogenated oil) or ingredients made from soy</p> <p>Salad dressing and mayonnaise made from unsaturated vegetable oils that do not contain ingredients made from soy ingredients</p>	<p>All fats, oils, and salad dressings that contain soy such as expeller-pressed soy oil (this oil is not highly refined and should be avoided)</p>
Other	<p>Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients and that do not contain ingredients made from soy ingredients</p> <p>Sauces</p> <p>Seasonings</p> <p>Spices</p> <p>Mustard, ketchup, and relish</p> <p>Flavoring extracts</p>	<p>Sugary and/or fatty desserts, candy, and other sweets made from soy ingredients</p> <p>Salt and seasonings that soy ingredients</p> <p>Hoisin</p> <p>Miso</p> <p>Natto</p> <p>Shoyu sauce</p>

	Flavoring extracts Gelatin Honey Jam, jelly, marmalade, and preserves Sugar Maple syrup Note: Soy lecithin is considered safe for most individuals with soy allergy	Soy sauce Tamari Broths and bullions with soy ingredients Marinades with soy ingredients Nondairy products with soy ingredients Nutritional bars and supplements with soy ingredients (high-protein supplements, high-energy supplements, breakfast bars and drinks)
Beverages	Coffee Tea Water, ice 100% fruit juice Nutritional supplements without soy ingredients	Beverages (juice, milk) with soy ingredients such as soymilk or soy protein beverages, Sweetened drinks such as, sweetened coffee or tea drinks, soda, energy drinks, and sports drinks

Soy Allergy Sample 1- Day Menu

Meal	Menu
Breakfast	1 cup low-fat milk 1 hard-boiled egg 1 cup oatmeal 1 small banana
Morning Snack	6 ounce yogurt 1 cup fresh, mixed berries
Lunch	1 cantaloupe wedge 1 large mixed green salad 2 slices rye bread (made without soy ingredients) 2 tablespoons olive oil and vinegar dressing 3 ounce turkey 2 teaspoons mustard 1 cup low-fat mil

Afternoon Snack	4 carrot sticks 4 celery sticks
Dinner	1 teaspoon dipping oil (olive oil and herbs) 4 ounce baked pork chop 1 cup vegetable soup 1 sweet potato ½ cup stir-fried vegetables 1 whole-wheat roll (made without soy ingredients)
Evening Snack	½ cup applesauce Hot tea

Menu Nutrient Analysis

Soy Allergy Nutrition Therapy

Tree Nut Allergy

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Grain foods including whole grains: whole wheat, barley, rye, buckwheat, teff, quinoa, millet, corn amaranth, brown or wild rice, sorghum, and oats made without tree nut ingredients.</p> <p>Processed grains such as pasta, hot and cold cereals, bread, snacks and sweets that are flour-based (cakes, cookies) and made from whole grains made without tree nut ingredients</p> <p>Plain, unflavored, and unseasoned rice</p>	<p>All grain foods made with tree nuts or ingredients made from tree nuts</p>
Protein Foods	<p>Fresh or frozen red meat (beef, pork, or lamb), poultry (chicken or turkey), or seafood (fish or shellfish)</p> <p>Eggs</p> <p>Nuts and seeds: seeds without added tree nut ingredients or potential for cross-contact with tree nuts, sunflower seeds, unsalted; sunflower seed butter</p>	<p>Tree nuts: Almond, beech nut, Brazil nut, butter nut, cashew, chestnut, chinquapin, coconut, filbert/hazelnut, ginkgo, hickory, lychee nut, macadamia nut, pecan, pili nut, pine nut (pignolia nut), pistachio, shea nut, walnut</p> <p>Prepared meats, poultry, and fish flavored or prepared with tree nut ingredients.</p>

	<p>Soy foods: tofu, tempeh, or soynuts</p> <p>Meat alternatives: veggie burgers and sausages from plant protein</p> <p>Legumes: such as dried beans, lentils, or peas</p>	<p>Processed red meats, such as bacon, sausage, ham, and mortadella (a type of luncheon meat that contains pistachios)</p> <p>Salted legumes, nuts, seeds, or tree nut/seed butters</p>
Dairy	<p>Low-fat or fat-free milk, yogurt, cottage cheese, and cheeses prepared without ingredients derived from tree nuts</p> <p>Fortified Soymilk, rice milk, hemp milk</p> <p>Frozen desserts made from low-fat milk without ingredients derived from tree nuts</p>	<p>Dairy products containing or prepared from ingredients that contain tree nuts</p>
Vegetables	<p>Fresh, frozen, and canned whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables prepared without peanut ingredients; low-sodium vegetable juices</p>	<p>Canned, fresh, or frozen vegetables prepared with ingredients that contain tree nuts</p>
Fruits	<p>Fresh, frozen, canned, and dried whole unsweetened fruits canned fruit packed in water or fruit juice without added sugar that do not contain tree nuts or tree nut ingredients; 100% fruit juice</p>	<p>Any fresh, frozen, or dried fruits prepared with tree nut ingredients.</p>

Oils	<p>Unsaturated vegetable oils: Almond, avocado, canola, grapeseed, olive, safflower, sesame, soybean, sunflower</p> <p>Margarines and spreads that list liquid vegetable oil as the first ingredient and do not contain trans fats (partially hydrogenated oil) or ingredients made from tree nuts</p> <p>Salad dressing and mayonnaise made from unsaturated vegetable oils that do not contain ingredients made from tree nut</p>	All fats, oils, and salad dressings that contain tree nut ingredients
Other	<p>Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients and that do not contain ingredients made from tree nuts</p> <p>Sauces</p> <p>Seasonings</p> <p>Spices</p>	<p>Sugary and/or fatty desserts, candy, and other sweets containing tree nut ingredients; salt and seasonings that contain salt or ingredients made from tree nuts</p> <p>Natural extracts such as almond or hazelnut extract Barbecue sauces and other marinades with tree nut ingredients Marzipan Nougat Artificial nuts Pesto Nut meal Gianduja</p> <p>Fried foods that contain peanuts or are made from tree nut ingredients</p>

Beverages	Coffee	Beverages (juice, milk) with added tree nut ingredients
	Tea	
	Water, ice	Nut-flavored coffees (made with natural nut extracts)
	100% fruit juice	
	Nutritional supplements that do not contain ingredients made from tree nuts	

Tree Nut Allergy Sample 1-Day Menu

Meal	Menu
Breakfast	1 cup low-fat milk 1 hard-boiled egg 1 cup oatmeal 1 small banana
Morning Snack	6 ounce yogurt 3 graham crackers
Lunch	1 cantaloupe wedge 2 slices whole-grain bread 3 ounce roast beef 1 large mixed green salad 2 teaspoons mayonnaise 1 cup low-fat milk 1 tablespoon olive oil and vinegar dressing
Afternoon Snack	4 carrot sticks 4 celery sticks
	2 teaspoons margarine 1 cup bean soup 1 whole-wheat roll

Dinner	1 sweet potato ½ cup stir-fried vegetables 4 ounce baked fish with herbs
Snack	½ cup applesauce Hot tea

Menu Nutrient Analysis

Tree Nut Allergy Nutrition Therapy

Wheat Allergy

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Grain foods including whole grains: Almond meal, arrowroot, barley, buckwheat, chickpea flour, corn, fava bean flour, flaxseed meal, millet, oat, potato starch, quinoa, rice, rye, sorghum, soy flour, tapioca, teff.</p> <p>Processed grains such as pasta, rice, hot and cold cereals, bread, snacks and sweets that are flour-based (cakes, cookies) and made from whole grains except wheat.</p> <p>Grain foods must not be made from wheat or contain wheat ingredients.</p>	<p>Grain foods made from wheat or other ingredients that contain wheat such as: Bulgur, cereal extract, cracked wheat, durum flour, durum wheat, emmer, einkorn, farina, farro, flours made from wheat (including all-purpose, bread, cake, enriched, graham, high-gluten, high-protein, pastry, and wheat), kamut, semolina, spelt, sprouted wheat, triticale, vital gluten wheat, wheat berries, wheat bran</p> <p>wheat germ, wheat gluten, wheat malt, wheat starch</p>
	<p>Fresh or frozen red meat (beef, pork, or lamb) poultry (chicken or turkey), fish, or seafood</p> <p>Eggs</p>	<p>Prepared meats, poultry, and fish flavored or seasoned with wheat</p>

Protein Foods	<p>Nuts and seeds: peanuts, almonds, pistachios, and sunflower seeds, unsalted; peanut butter, almond butter, and sunflower seed butter</p> <p>Soy foods: tofu, tempeh, or soynuts</p> <p>Meat alternatives: veggie burgers and sausages from plant protein without added sodium except those made with wheat ingredients.</p> <p>Legumes: such as dried beans, lentils, or peas</p>	<p>ingredients. All protein foods prepared with ingredients that contain wheat</p> <p>Meat alternatives with high levels of sodium or saturated fat and that contain wheat ingredients.</p>
Dairy	<p>Low-fat or fat-free milk, yogurt, cottage cheese, and cheeses</p> <p>Fortified soymilk, almond milk, rice milk, hemp milk, coconut milk</p> <p>Frozen desserts made from low-fat milk without ingredients derived from wheat</p>	<p>Dairy products with ingredients derived from wheat ingredients</p>
Vegetables	<p>Fresh, frozen, and canned whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables except wheat or any other vegetables that have been prepared with ingredients that contain wheat; low-sodium vegetable</p>	<p>Canned, fresh, or frozen corn or other vegetables prepared with ingredients that contain wheat ingredients</p>

	juices	
Fruits	Fresh, frozen, canned and dried whole unsweetened fruits canned fruit packed in water or fruit juice without added sugar; 100% fruit juice	Any frozen, or dried fruits prepared with wheat ingredients.
Oils	<p>Unsaturated vegetable oils: Almond, avocado, canola, cashew, corn, grapeseed, olive, safflower, sesame, soybean, sunflower</p> <p>Margarines and spreads that list liquid vegetable oil as the first ingredient and do not contain trans fats (partially hydrogenated oil) or ingredients made from wheat</p> <p>Salad dressing and mayonnaise made from unsaturated vegetable oils that do not contain ingredients made from wheat</p>	All fats, oils, and salad dressings that contain wheat ingredients
Other	<p>Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients and do not contain wheat ingredients</p> <p>Sauces</p> <p>Seasonings</p> <p>Spices</p> <p>Mustard, ketchup, and relish</p> <p>Flavoring extracts</p> <p>Gelatin</p> <p>Honey</p> <p>Jam, jelly, marmalade, and preserves</p> <p>Sugar</p> <p>Maple syrup</p>	<p>Sugary and/or fatty desserts, candy, and other sweets that contain salt or wheat ingredients</p> <p>Fried foods</p>

Beverages	Coffee	Drinks made with wheat ingredients
	Tea	
	Water, ice	
	100% fruit juice	
	Nutritional supplements that do not contain wheat ingredients	

Wheat Allergy Sample 1- Day Menu

Meal	Menu
Breakfast	1 cup oatmeal 1 hard-boiled egg 1 small banana 1 cup low-fat milk
Morning Snack	1 ounce wheat-free crackers (like rye crackers) 2 ounce cheese (for example, cheddar)
Lunch	1 large mixed green salad 1 tablespoon olive oil and vinegar salad dressing 3 ounce turkey 2 slices wheat-free bread (like rye bread) 2 teaspoons mayonnaise 1 cantaloupe wedge 1 cup low-fat milk
Afternoon Snack	4 carrot sticks 4 celery sticks
Dinner	1 cup barley soup (made from allowed ingredients) 4 ounce baked fish with herbs 1 sweet potato ½ cup stir-fried vegetables 1 wheat-free roll (like rye)

	1 cup low-fat milk
Snack	½ cup applesauce
	Hot tea

Menu Nutrient Analysis

Wheat Allergy Nutrition Therapy

Gluten

See Gluten-Free Diet in the Gastrointestinal Diet section.

Fiber Restricted Diet

Definition: This diet comprises less than 13 g fiber daily. A fiber-restricted diet contains limited amounts of indigestible foods and avoids whole grains, seeds, whole nuts, raw vegetables, and the connective tissues of meats.

Indication: A fiber-restricted diet may be prescribed for patients with a diagnosis of acute diverticulitis, Crohn's disease, ulcerative colitis, or irritable bowel syndrome or patients recovering from surgery on the gastrointestinal tract (such as for new colostomy or ileostomy). This diet should decrease the volume and bulk of the stool and cause slower movement of foods through the intestines. It may also decrease symptoms of diarrhea, abdominal pain, gas, and bloating. For individuals who have recently undergone gastrointestinal surgery, slowly and progressively increasing fiber intake is beneficial to prevent bowel obstructions.

Nutritional Adequacy: Because of the therapeutic dietary restriction for the fiber-restricted diet

§, this diet may be inadequate in fiber when compared to the Recommended Dietary Allowances/Dietary Reference Intakes for adults. Because this diet intentionally restricts intake of whole grains, fruits, and vegetables that contain fiber and other micronutrients, nutritional deficiencies in the diet are possible. This restriction is required to achieve the therapeutic effect of the diet. Therefore, this diet is not intended for long-term use.

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Choose grain products with less than 2 g fiber per serving, such as bread, rolls, hot or cold prepared (low fiber) breakfast cereals, crackers, and pasta made from white flour</p> <p>Breads and starches made with white flour such as bagels, rolls, and hot or cold cereals</p>	<p>Whole grains including whole wheat, barley, rye, buckwheat, corn, teff, quinoa, millet, amaranth, brown and wild rice, sorghum, and oats</p> <p>Popcorn</p>

Protein Foods	Fresh or frozen red meat, including lean, trimmed cuts of beef, pork, or lamb	
	Fresh or frozen poultry, including skinless chicken or turkey,	
	Fresh, frozen, or canned seafood, including fish (salmon, herring, and sardines), shrimp, lobster, clams, and scallops	Legumes, nuts, or seeds, such as peanuts, almonds, pistachios, and sunflower seeds, unsalted
	Eggs and egg substitutes	Chunky nut and seed butters, such as peanut butter, almond butter, and sunflower seed butter
	Smooth nut and seed butters, such as peanut butter, almond butter, and sunflower seed butter	Processed meat alternatives with greater than 2 g fiber per serving
	Soy foods, such as tofu, tempeh, or soynuts	Legumes, such as dried beans, lentils, or peas
	Meat alternatives, such as veggie burgers, and sausages based on plant protein, with less than 2 g fiber per serving	
	Low-fat or fat-free milk, yogurt (low in added sugars), kefir, cottage cheese, and cheeses*, including lactose-free varieties	

Dairy	<p>Frozen desserts made from low-fat milk*</p> <p>Fortified soymilk</p>	<p>Yogurt or ice cream with granola, dried fruit, seeds, or nuts</p>
Vegetables	<p>Most well-cooked vegetables without seeds or skins</p> <p>Potatoes without skin</p> <p>Lettuce on a sandwich (unless stricture present)</p> <p>Strained, low-sodium vegetable juice</p>	<p>Broccoli, brussels sprouts, cabbage, cauliflower, collard, mustard, and turnip greens, corn, dried beans, lima beans, mushrooms, okra, onions, potato skins, spinach</p> <p>Fried or raw vegetables</p>
Fruits	<p>Fruit juice without pulp (except for prune juice), fruit and vegetable juice blends, ripe bananas, melons, canned soft fruits (except pineapple),</p> <p>100% fruit juice without pulp</p>	<p>All fresh fruits except banana and melons</p> <p>Dried fruits, including prunes and raisins</p> <p>Fruit juice with pulp</p> <p>Any fruits sweetened with sorbitol</p> <p>Prune juice</p>
Oils	<p>Unsaturated vegetable oils, including olive, peanut, and canola oils; margarines and spreads, which list liquid vegetable oil as the first ingredient and does not contain trans fats (partially hydrogenated oil); salad dressing and mayonnaise made from unsaturated vegetable oils</p>	<p>Solid shortening or partially hydrogenated oils</p> <p>Solid margarine made with hydrogenated or partially hydrogenated oils</p> <p>Margarine that contains trans fats; butter</p>

Beverages	Decaf coffee, decaf tea (unsweetened), water, 100% fruit juice, rehydration beverages	<p>Beverages containing caffeine, including regular coffee, regular tea, soft drinks, and energy drinks</p> <p>Limit beverages containing high-fructose corn syrup to 12 ounces per day</p> <p>Avoid beverages sweetened with sorbitol or other sugar substitutes</p>
Other	Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients	<p>Sugary and/or fatty desserts, candy, and other sweets; salt and seasonings that contain salt</p> <p>Sugar alcohols such as xylitol and sorbitol</p> <p>Honey</p>

*Contains milk and may worsen diarrhea associated with lactose intolerance

Fiber-Restricted Diet Sample 1 Day Menu

Meal	Menu
Breakfast	<p>1 cup puffed rice cereal (0.5 gram fiber)</p> <p>1 cup lactose-free cow's milk</p> <p>½ ripe banana (1.5 grams fiber)</p>
Morning Snack	<p>1 cup decaffeinated tea</p> <p>6 ounces smooth yogurt (with no nuts, granola, or fruit) (1.5 grams fiber)</p>

Lunch	2 cups chicken-rice soup 1/4 cup cooked carrots (2.0 grams fiber) added to soup 1/2 cup applesauce (1.5 gram fiber) 1/2 turkey sandwich made with: 1 slice white bread (0.5 gram fiber) 2 ounces chicken 1 teaspoon mayonnaise
Afternoon Snack	2 to 3 saltine crackers 1 cup Gatorade or Powerade or hot chocolate made with: 1 cup lactose-free milk 1 tablespoon chocolate syrup
Dinner	1/2 cup mashed potatoes without skin (1.5 grams fiber) 1/2 cup green beans, cooked well (2 grams fiber) 1 1/2 cups water or other caffeine-free drink 4 to 6 ounces baked fish Bread crumbs (0.5 gram fiber) (to top fish) Dash of lemon juice (for fish) 1 teaspoon margarine or butter (for fish)
Snack	1/2 cup sorbet (1 g fiber)

Menu Nutrient Analysis

Fiber-Restricted Nutrition Therapy

High Fiber Diet

Definition: This diet contains added sources of fiber from fruits, vegetables, legumes, nuts and seeds, and whole grains to obtain a fiber intake of 25 g to 35 g per day. Ideally, the diet's fiber content is steadily increased to promote gradual tolerance to increased fiber intake.

Increased fiber intake requires adequate fluid intake.

Indication: High-fiber diets are used for many different chronic conditions, including constipation, diabetes, and weight management. This diet is recommended for individuals with diverticulosis. A high-fiber diet may relieve discomfort associated with constipation and improve stool regularity.

Nutritional Adequacy: This diet meets the Dietary Reference Intakes (DRIs) for macronutrients and micronutrients.

Food Group	Foods Recommended	Foods Not Recommended
Grains	<p>Whole grains including whole wheat, barley, rye, buckwheat, corn, teff, quinoa, millet, amaranth, brown and wild rice, sorghum, and oats;</p> <p>Choose grain products, such as bread, rolls, prepared breakfast cereals, crackers, and pasta made from whole grains</p>	<p>Sweetened, low-fiber breakfast cereals</p> <p>Packaged (high sugar, refined ingredients) baked goods</p> <p>Snack crackers and chips made of refined ingredients, cheese crackers, butter crackers</p> <p>Breads and starches made with refined ingredients (white flour) and saturated fats, such as biscuits, frozen waffles, sweet breads, doughnuts, pastries, packaged baking</p>

		mixes, pancakes, cakes, and cookies
Protein Foods	Fresh or frozen red meat, including lean, trimmed cuts of beef, pork, or lamb a few times per week; avoid processed meats, such as bacon, sausage, and ham	
	Fresh or frozen poultry, including skinless chicken or turkey, avoid processed meats that are higher in sodium	Marbled or fatty red meats (beef, pork, lamb), such as ribs
	Fresh, frozen, or canned seafood, including fish (salmon, herring, and sardines), shrimp, lobster, clams, and scallops at least twice per week.	Processed red meats, such as bacon, sausage, and ham
	Eggs and egg substitutes	Poultry (chicken and turkey) with skin
	Nuts and seeds, such as peanuts, almonds, pistachios, and sunflower seeds, unsalted	Fried meats, poultry, or fish
	Nut and seed butters, such as peanut butter, almond butter, and sunflower seed butter, reduced sodium.	Deli meats, such as pastrami, bologna, or salami (made of meat or poultry)
	Soy foods, such as tofu, tempeh, or soynuts	Salted legumes, nuts, seeds, or nut/seed butters
		Processed meat alternatives with high levels of sodium or saturated fat

	<p>Meat alternatives, such as veggie burgers, and sausages based on plant protein, reduced sodium</p> <p>Legumes, such as dried beans, lentils, or peas at least a few times per week in place of other protein sources, unsalted</p>	
Dairy	<p>Low-fat or fat-free milk, yogurt (low in added sugars), cottage cheese, and cheeses</p> <p>Frozen desserts made from low-fat milk</p> <p>Fortified soymilk</p>	<p>Whole milk, cream, cheeses made from whole milk, sour cream</p> <p>Yogurt or ice cream made from whole milk or with added sugar</p> <p>Cream cheese made from whole milk</p>
Vegetables	<p>A variety of fresh, frozen, and canned (unsalted) whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables; low-sodium vegetable juices</p>	<p>Canned or frozen vegetables with salt, fresh vegetables prepared with salt</p> <p>Fried vegetables</p> <p>Vegetables in cream sauce or cheese sauce</p> <p>Tomato or pasta sauce with high levels of salt or sugar</p>

Fruits	<p>A variety of fresh, frozen, canned and dried whole unsweetened fruits, canned fruit packed in water or fruit juice without added sugar</p> <p>100% fruit juice (½ cup) limited to one serving per day</p>	Fruits packed in syrup or made with added sugar
Oils	<p>Unsaturated vegetable oils, including olive, peanut, and canola oils; margarines and spreads, which list liquid vegetable oil as the first ingredient and does not contain trans fats (partially hydrogenated oil); salad dressing and mayonnaise made from unsaturated vegetable oils</p>	<p>Solid shortening or partially hydrogenated oils</p> <p>Solid margarine made with hydrogenated or partially hydrogenated oils</p> <p>Margarine that contains trans fats; butter</p>
Beverages	Coffee, tea (unsweetened), water, 100% fruit juice	Sweetened drinks, including sweetened coffee or tea drinks, soda, energy drinks, and sports drinks
Other	Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients	<p>Sugary and/or fatty desserts, candy, and other sweets; salt and seasonings that contain salt</p> <p>Fried foods</p>

High-Fiber Sample 1 Day Menu

Meal	Menu
Breakfast	<p>½ cup orange juice, with pulp</p> <p>½ cup raisin bran</p> <p>1 cup coffee</p> <p>1 cup fat-free milk</p>

Morning Snack	1 cup plain yogurt 2 cups water
Lunch	8 whole wheat crackers ½ cup kidney beans ½ cup soy crumble 1 apple (with skin) 2 cups water or sugar-free lemonade 1½ cups chili 2 tablespoons shredded cheese
Dinner	½ cup fresh berries 2 ounces sliced chicken 1 cup brown rice 2 cups mixed fresh vegetables 1 cup hot tea 1 ounce tofu
Snack	2 tablespoons almonds 1 cup hot chocolate

Menu Nutrient Analysis

High Fiber Nutrition Therapy

Gluten-Free Diet

Definition: A gluten-free diet is a regular or house diet that restricts all sources of gluten and gluten-containing products. Gluten-free grains replace gluten-containing menu options to maintain adequate energy and nutrient profile of the diet. Gluten sources are wheat, rye, barley, and oats (unless it is specified that the product is gluten-free oats). Gluten-free diets are distinct from wheat allergy diets as not all foods that contain gluten are derived only from wheat (such as rye, barley, oats, and any foods made from their ingredients). See Wheat Allergy section for details about wheat allergy diets.

Indication: Gluten-free diets are required for the medical management of celiac disease or gluten sensitivity. Removal of gluten from the meal plan is essential for gastrointestinal health for individuals with these conditions.

Nutritional Adequacy: This diet meets the Dietary Reference Intakes (DRIs) for macronutrients and micronutrients. Many gluten-free grain foods are made from refined flours and/or starches, and most of these products are not enriched with B-vitamins and iron. As a result, a gluten-free nutrition prescription may be lacking in B-vitamins, iron, and fiber, especially if there is heavy reliance on foods of low nutrient density in the meal plan. In addition, some persons with celiac disease have secondary lactose intolerance. Calcium intake of these individuals should be monitored.

Food Group	Foods Recommended	Foods Not Recommended
Grains	Whole grains including whole amaranth, buckwheat, corn, teff, quinoa, millet, amaranth, brown and wild rice, sorghum, certified gluten-free oats, teff, millet, finger millet (ragi), sourghum, Indian rice grass (montina), arrowroot, flax, Job's tears, sago, potato, soy, legumes, mesquite,	Gluten-containing grain: All varieties of wheat including einkorn, emmer, spelt, and kamut, wheat starch, wheat bran, wheat germ, cracked wheat, and hydrolyzed wheat protein, barley, rye, triticale, oats not specified as gluten free Gluten containing products: Flour, white flour, plain flour, bromated flour, enriched flour, phosphated flour, self-rising flour, durum

	<p>tapioca, cassava (manioc), yucca</p> <p>Choose grain products, such as bread, rolls, prepared breakfast cereals, crackers, and pasta made from gluten-free grains</p>	<p>flour, farina, semolina, graham flour, dextrin (if from wheat source), caramel color (if from wheat source), maltodextrin (if from wheat source), or modified food starch (if from wheat source), matzo</p> <p>Breads and starches made with gluten</p>
Protein Foods	<p>Fresh or frozen red meat (beef, pork, or lamb); fresh or frozen poultry (chicken or turkey); or</p> <p>fresh, frozen, or canned seafood, including fish (salmon, herring, and sardines), shrimp, lobster, clams, and scallops</p> <p>Eggs and egg substitutes</p> <p>Nuts and seeds, such as peanuts, almonds, pistachios, and sunflower seeds</p> <p>Nut and seed butters, such as peanut butter, almond butter, and sunflower seed butter</p> <p>Soy foods, such as tofu,</p>	<p>Marbled or fatty red meats (beef, pork, lamb), such as ribs</p> <p>Processed red meats, such as bacon, sausage, and ham</p> <p>Poultry (chicken and turkey) with skin, gluten-containing self-basting poultry</p> <p>Fried meats, poultry, or fish</p> <p>Gluten-containing imitation fish or seafood</p> <p>Gluten-containing deli meats, such as pastrami, bologna, or salami (made of meat or poultry)</p> <p>Fried eggs</p>

	<p>tempeh, or soynuts</p> <p>Meat alternatives, such as veggie burgers, and sausages based on plant protein</p> <p>Legumes, such as dried beans, lentils, or peas</p>	<p>Salted legumes, nuts, seeds, or nut/seed butters</p> <p>Processed meat alternatives with high levels of sodium or saturated fat</p> <p>Seitan</p>
Dairy	<p>Low-fat or fat-free milk, yogurt (without gluten-containing granola), cottage cheese, and cheeses</p> <p>Frozen gluten-free desserts made from low-fat milk</p> <p>Fortified soymilk</p>	<p>Dairy prepared with gluten or gluten-containing ingredients</p>
Vegetables	<p>Fresh, frozen, and canned whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables; low-sodium vegetable juices</p>	<p>Vegetables prepared with gluten or gluten-containing ingredients</p> <p>Fried vegetables</p> <p>Vegetables in cream sauce or cheese sauce</p>

Fruits	Fresh, frozen, canned, and dried whole unsweetened fruits, canned fruit packed in water or fruit juice without added sugar 100% fruit juice	Fruit prepared with gluten or gluten-containing ingredients
Oils	Unsaturated vegetable oils, including olive, peanut, and canola oils; margarines and spreads, which list liquid vegetable oil as the first ingredient and does not contain trans fats (partially hydrogenated oil); salad dressing and mayonnaise made from unsaturated vegetable oils	
Beverages	Coffee, tea (unsweetened), water, 100% fruit juice	Gluten-containing beverages
Other	Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients	Gluten-containing foods: bouillon cubes, brown rice syrup, gravy made with wheat flour, licorice, soy sauce, sauces prepared with wheat flour, beer, malt, malted syrup/extract, malt beverages, malt vinegar All products with ingredient lists that state, "May contain wheat", "May contain barley", "May contain rye", "May contain gluten" Sugary and/or fatty desserts, candy, and other sweets; salt and

		seasonings that contain salt
		Fried foods

Gluten-Free Diet Sample 1-Day Menu

Meal	Menu
Breakfast	2 cups rice cereal ½ cup orange juice 1 cup low-fat milk
Lunch	2 ounce taco meat, seasoned with chili powder 2 corn taco shells 1 cup lettuce ½ cup diced tomato 2 tablespoons shredded cheese 1 apple 1 cup low-fat milk
Afternoon Snack	1 ounce string cheese 3 cups plain microwave popcorn
Dinner	2 ounce chicken, stir-fried 1 cup vegetables, stir-fried 1 teaspoon oil ½ cup plain brown rice ½ cup mandarin oranges 1 cup water
Snack	½ cup vanilla ice cream 2 tablespoons plain peanuts

Menu Nutrient analysis

Gluten-Free Nutrition Therapy

Lactose-Controlled Diet

Definition: The Lactose-controlled diet removes all sources of lactose from the diet. Lactose is the sugar in milk and dairy foods. To digest lactose, people need to have a specific enzyme, lactase, in the small intestine. Individuals with trouble digesting lactose may experience diarrhea, bloating, stomach pain, and gas symptoms. Limiting or avoiding milk and dairy products can help ease these symptoms.

Indications: A lactose-controlled diet is recommended for individuals with lactose intolerance or lactase enzyme deficiency. Because symptoms vary significantly, the registered dietitian nutritionist may need to individualize this diet to best fit the needs and food tolerance of the individual with lactose intolerance. Reducing the diet's lactose content will decrease the symptoms associated with intolerance or deficiency.

Nutritional Adequacy: This diet meets the Dietary Reference Intakes (DRIs) for macronutrients and micronutrients. Many lactose-containing foods are high in calcium and vitamin D. As a result, a lactose-controlled nutrition prescription should be carefully planned to include dairy substitutes that are enriched with calcium and vitamin D.

Food Group	Foods Recommended	Foods Not Recommended
Grains	Whole grains including whole wheat, barley, rye, buckwheat, corn, teff, quinoa, millet, amaranth, brown and wild rice, sorghum, and oats; Choose grain products, such as bread, rolls, prepared breakfast cereals, crackers, and pasta made from whole grains	Grain foods prepared with milk or lactose-containing ingredients
	Fresh or frozen red meat (beef, pork, or lamb) Fresh or frozen poultry (chicken or turkey)	

Protein Foods	<p>Fresh, frozen, or canned seafood, including fish (salmon, herring, and sardines), shrimp, lobster, clams, and scallops.</p> <p>Eggs and egg substitutes</p> <p>Nuts and seeds, such as peanuts, almonds, pistachios, and sunflower seeds, unsalted</p> <p>Nut and seed butters, such as peanut butter, almond butter, and sunflower seed butter, reduced sodium.</p> <p>Soy foods, such as tofu, tempeh, or soynuts</p> <p>Meat alternatives, such as veggie burgers, and sausages based on plant protein, reduced sodium</p> <p>Legumes, such as dried beans, lentils, or peas at least a few times per week in place of other protein sources, unsalted</p>	Protein foods prepared with milk or lactose-containing ingredients.
	<p>Lactose-free milk</p> <p>Nondairy creamers*</p> <p>Nondairy whipped topping*</p> <p>Fortified almond, rice, or soy milk</p> <p>Soy yogurt or soy cheese</p> <p>Almond milk cheese</p> <p>Soy-based sour cream</p>	

Dairy	<p>Some people with lactose intolerance can safely eat dairy foods that contain a little lactose (less than 1 gram lactose per serving) such as:</p> <p>1-2 ounces aged cheese, such as Swiss, cheddar, or parmesan,</p> <p>2 tablespoons cream cheese</p> <p>1/3 cup cottage cheese</p> <p>½ cup ricotta cheese</p>	Butter, cream, milk, milk solids, or whey, yogurt, cheese, or ice cream containing lactose
Vegetables	Fresh, frozen, and canned (unsalted) whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables; low-sodium vegetable juices	Vegetables in cream sauce or cheese sauce that contain milk or lactose ingredients
Fruits	<p>Fresh, frozen, canned and dried whole unsweetened fruits, canned fruit packed in water or fruit juice without added sugar</p> <p>100% fruit juice</p>	Fruits in cream sauces or made with lactose ingredients.
Oils	Unsaturated vegetable oils, including olive, peanut, and canola oils; margarines and spreads, which list liquid vegetable oil as the first ingredient and does not contain trans fats (partially hydrogenated oil); salad dressing and mayonnaise	Butter

	made from unsaturated vegetable oils	
Beverages	Coffee, tea (unsweetened), water, 100% fruit juice	Sweetened drinks, including sweetened coffee or tea drinks, soda, energy drinks, and sports drinks
Other	Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients	<p>Foods made with butter, cream, milk, milk solids, or whey. Products with ingredient lists that state, "May contain milk."</p> <p>Sugary and/or fatty desserts, candy, and other sweets; salt and seasonings that contain salt</p> <p>Fried foods</p>

Foods marked with a star (*) may contain lactose. Try these foods one at a time, in small amounts. Stop eating them if symptoms return or get worse.

Lactose-Controlled Diet Sample 1-Day Menu

Meal	Menu
Breakfast	1 cup oatmeal 2 tablespoons chopped dried apricots 2 tablespoons slivered almonds 1 teaspoon brown sugar ½ cup lactose-free milk ¾ cup orange juice, calcium-fortified
Morning Snack	1 small banana 4 ounce soy yogurt
Lunch	3-ounce salmon 1 tossed salad with mixed vegetables 2 tablespoons vinegar and oil salad dressing 1 whole grain roll 1 tablespoon hummus 1 pear
Afternoon Snack	1 cup trail mix with oat cereal, nuts, raisins

Dinner	2 corn or wheat tortilla ½ cup chicken breast 1/4 cup roasted sweet pepper 1/4 cup onions 1/4 cup salsa ½ cup pinto beans ½ cup brown rice
Snack	1 slice whole grain bread 1 tablespoon peanut butter 1 cup soy milk

Menu Nutrient Analysis

Lactose-Controlled Nutrition Therapy

Fat-Restricted Diet

Definition: Fat-restricted diets limit the total amount of fat served daily to 25% to 35% of total energy. A 2000 kcal per day menu should limit fat to 50 g to 75 g total.

Indication: May be indicated if client is having trouble digesting or absorbing fat and may help prevent uncomfortable side effects—such as diarrhea, bloating, and cramping—that may occur with consumption of high-fat foods. This diet is commonly prescribed for disorders of the pancreas, gall bladder, liver, and gastrointestinal tract, as patients with these conditions may benefit from reducing fat intake (Madden, 2017; Greenberg, 2016; Anand, 2012).

Nutritional Adequacy: Despite the intentional, individual restrictions of a fat-restricted diet, these meal plans can still have adequate energy, macronutrients, and micronutrients for patients of all ages. This diet is appropriate for long-term use and meets the Recommended Dietary Allowances/Dietary Reference Intakes for all ages.

Food Group	Foods Recommended	Foods Not Recommended
Grains	Whole grains, including whole wheat, barley, rye, buckwheat, corn, teff, quinoa, millet, amaranth, brown and wild rice, sorghum, and oats prepared without added fats Choose grain products, such as bread, rolls, prepared breakfast cereals, crackers, and pasta made from whole grains prepared without added fats	Packaged baked goods, chips, cheese crackers, butter crackers Breads made with saturated fats, such as biscuits, frozen waffles, sweet breads, doughnuts, pastries, packaged baking mixes, pancakes, cakes, and cookies
	Fresh or frozen red meat(lean, trimmed cuts of beef, pork, or lamb) or fresh or frozen poultry(including skinless chicken or turkey) Fresh, frozen, or canned	Marbled or fatty red meats (beef, pork, lamb), such as ribs, T-bone steak, regular hamburger (70/30) Processed red meats, such

Protein Foods	seafood, including fish (fatty fish, such as salmon, herring, and sardines), shrimp, lobster, clams, and scallops at least twice per week.	as bacon, sausage, and ham
	Eggwhites or egg substitute	Poultry (chicken and turkey) with skin
	Nuts and seeds, such as peanuts, almonds, pistachios, and sunflower seeds	Fried meats, poultry, or fish
	Nut and seed butters, such as peanut butter, almond butter, and sunflower seed butter	Organ meats (liver, brains, sweetbreads)
	Soy foods, such as tofu, tempeh, or soynuts	Deli meats, such as pastrami, bologna, salami (made of meat or poultry), cold cuts, corned beef, hot dogs
	Meat alternatives, such as veggie burgers, and sausages based on plant protein	Whole eggs, fried eggs, egg yolks
	Legumes, such as dried beans, lentils, or peas at least a few times per week in place of other protein sources	Meat alternatives with high levels of saturated fat
Dairy	Low-Fat (1%) or Fat-free milk, yogurt, cottage cheese, and cheeses	Whole milk, cream, cheeses made from whole milk, cream cheese, sour cream
	Fat-free, lactose-free milk and lactose-free, low-fat ice cream/frozen yogurt and sour cream may be tolerated better	Yogurt or ice cream made from whole milk or with added sugar

	Fortified soymilk	
Vegetables	All fresh, frozen, and canned whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables; low-sodium vegetable juices	Fried vegetables Vegetables in cream sauce or cheese sauce
Fruits	All fresh, frozen, canned and dried (whole unsweetened fruits canned fruit packed in water or fruit juice without added sugar) 100% fruit juice	
Oils and Fats	Unsaturated vegetable oils, including olive, peanut, and canola oils; margarines and spreads, which list liquid vegetable oil as the first ingredient and does not contain trans fats Avocado Salad dressing and mayonnaise made from unsaturated vegetable oils	Solid shortening or partially hydrogenated oils Solid margarine made with hydrogenated or partially hydrogenated oils Tropical oils (coconut, palm, and palm kernel oils) Margarine that contains trans fats; butter
Beverages	Coffee, tea (unsweetened), water, 100% fruit juice	Beverages with added fats
Other	Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from recommended ingredients	Prepared foods, including soups, casseroles, salads, baked goods, and snacks made from not recommended ingredients

Fat-Restricted Sample 1-Day Menu

Meal	Menu
Breakfast	<ul style="list-style-type: none">½ cup apple juice¾ cup oatmeal1 small banana1 cup fat-free milk1 cup brewed coffee
Lunch	<ul style="list-style-type: none">Turkey and cheese sandwich made with:<ul style="list-style-type: none">2 slices whole wheat bread2 ounces lean deli turkey breast1 ounce low-fat Swiss cheeseMustard1 medium sliced tomato and shredded lettuce1 pear1 cup fat-free milk
Afternoon Snack	<ul style="list-style-type: none">4 carrot sticks4 celery sticks
Dinner	<ul style="list-style-type: none">3 ounces broiled fish1 cup brown rice with1 teaspoon soft margarine1 medium stalk cooked broccoliSalad made with mixed greens, tomatoes, carrots, chickpeasOlive oil and vinegar dressing1 small whole grain roll1 teaspoon soft margarine1 cup tea½ cup fat-free frozen yogurt with fruit
Snack	<ul style="list-style-type: none">1 ounce trail mix with nuts, seeds, and dried fruit1 cup blueberries1 cup fat-free milk

Menu Nutrient Analysis

Fat-Restricted Nutrition Therapy

Overview

Although correctional foodservice has some general similarities to foodservice in other health care settings such as nutrition care, menu planning, food production, and meal service, there are many unique concepts, policies, and procedures that affect correctional food and nutrition services.

Correctional facilities provide for all of an individual's needs, including adequate nutrition. Menus are planned to provide foods and fluids to meet the needs of a variety of populations and demographics. Often, a general "heart-healthy" diet is planned to satisfy nutrition needs and meet regulatory requirements and budget constraints. Special considerations for dining, such as inmate safety and availability of therapeutic foods, may be required as meals are served in a number of settings including dining halls, cell blocks, medical cells, or individual cells.

Different facilities may use different terminology to describe their populations, for example, prisoner, inmate, or patient. The term "inmate" will be used throughout this NCM Diet Manual.

Practices common in other health care settings may not be used/practical in a correctional setting.

- Acknowledging/honoring food preferences: Menus are planned without concern to meet food preferences of each individual inmate. Regulations and budget play a large role in menu development.
- Food preferences: Food preferences may erroneously be recorded as food allergies. Further investigation is required if an inmate's record shows a food allergy.
- Snacks: Although snacks are included in correctional foodservice for youth, they are not routinely included in menus for adult inmates unless part of a therapeutic regimen to address nutritional concerns including:
 - Diabetes
 - Pregnancy
 - Unintended weight loss
 - Eating disorder
- Eating utensils: For safety reasons, metal eating utensils are rarely used. Instead, plastic sporks or spoons are provided. Adaptive utensils may be considered for inmates with specific conditions, though this can

present a security risk. When adaptive equipment is issued, documentation is required for security procedures.

- Food alternatives: Inmates may be served foods not offered on the standard menu only if accompanied by a medical order.
- Clinical documentation—Many correctional facilities do not involve the RDN in clinical documentation.
- Use of ambulatory aides:
 - Seating in dining areas is fixed, so reaching the table with a wheelchair can be challenging.
 - Wheelchairs and walkers have many removable parts that may be used as weapons or contraband.
 - Inmates requiring this equipment may be at risk for being targeted by other inmates.
- Food packaging:
 - Containers with foil lids may not be allowed.
 - Aluminum foil is often prohibited. Cellophane is the preferred substitute.
 - Glass containers are not permitted.
 - Metal tabs or can lids are controlled or tracked.
 - Some facilities have knifeless kitchens and presliced or preshredded foods may be purchased.

General Information

The registered dietitian nutritionist (RDN) at a correctional setting can use the NCM Diet Manual as a resource to offer guidance to foodservice and medical staff providing care for inmates, or it can be adapted as a correctional facility's diet manual. This section discusses nationally recognized practices in correctional settings and reviews how inmate diet needs are met. It includes the following helpful forms:

- Medical Diet Requisition
- Medical Diet Roster Sign-Off Sheet
- Corrections Diet Terminologies
- Menu Substitution Logs
- Growth charts for youth

Additional Online Resources

Association of Correctional Food Service Affiliates

American Correctional Association

American Jail Association

National Commission on Correctional Health Care

School Nutrition Association

US Department of Agriculture National School Lunch Program/School Breakfast Program

Regulations For Correctional Facilities

Diet manuals or other approved guidelines are required in almost all correctional institutions. They should be available in both the food and nutrition services department and the medical department. Many correctional systems, particularly prisons, have developed a statewide diet manual for use in all institutions within their purview; the Nutrition Care Manual can be adapted for this setting. Some jails and other institutions have created facility-specific manuals with approved diets for their institution. In these settings, the Nutrition Care Manual can be used as an adjunct resource. Diet manuals should be reviewed and approved per facility protocol.

<p>Meeting Nutritional Standards</p> <p>Many agencies reference the Recommended Dietary Allowances (RDAs) in their regulations as this has been a gold standard used for correctional nutrition. Other resources and guidelines used are:</p> <ul style="list-style-type: none"> • Dietary Reference Intakes (DRIs) • Dietary Guidelines for Americans • MyPlate.gov • US Department of Agriculture Child Nutrition Program (National School Lunch Program/School Breakfast Program) • TLC (Therapeutic Lifestyle Changes) Diet • DASH (Dietary Approaches to 	<p>Governing Agencies</p> <ul style="list-style-type: none"> • These vary by state, facility, and age group of the population incarcerated • Some regulations are very precise and define meal patterns and specific macronutrients/micronutrients to be provided in the menu • State standards are posted on state government websites. Keyword searches include: <ul style="list-style-type: none"> • Standards for foodservice • State's jail or prison/department of corrections • State's administrative code • For jails and detention facilities, only 38 states have nutrition standards, though not all are mandatory 	<p>Accrediting Organizations</p> <p>The American Correctional Association and National Commission on Correctional Health Care are the two most recognized agencies for standards and accreditations in the corrections industry. Accreditation is voluntary, but facilities often incorporate these standards in their policies and procedures, regardless of accreditation status. Following these practices helps to reduce potential litigation concerns in correctional facilities.</p>
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Stop Hypertension) Diet		
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Medical and Therapeutic Diets

Medical and therapeutic diets are ordered in corrections settings as required to address medical needs of inmates. A standardized medical/therapeutic diet program is required in each facility. There is no standard set of diets that applies to all correctional settings. However, a liberalized menu that meets a wide variety of dietary needs provide needed flexibility in this setting.

The registered dietitian nutritionist can work with the medical team to annually review the list of approved diets to enforce consistent diet terminologies and modifications for inmates. This can be accomplished by following the Process for Annual Diet Manual Review and Implementation.

Diet orders may be called a "medical" diet or a "therapeutic" diet. Some facilities may use the terms interchangeably, though a therapeutic diet is often considered temporary whereas medical diets may be ordered for chronic medical conditions. For example, a medical diet may be ordered for an inmate with diabetes, hypertension, or cardiac disease, whereas a therapeutic diet may be ordered for pregnancy, poor dentition, or acute illness, or for personal safety reasons

In the correctional setting, mechanically altered diets, liquid diets, blenderized diets, finger foods diets, and fortified foods diets are all considered therapeutic diets. However, these diets are often prescribed in a correctional facility for reasons that are not as common in other types of health care facilities. For example:

- Blenderized diets are commonly used for inmates with a wired mouth because of a broken jaw, which is often a result of an inmate altercation.
- Finger foods are often provided for psychological/security reasons such as inmates at risk for self-harm, suicide, or aggressive behavior.

Allergy Diets and Intolerances

Food allergies and intolerances are often assessed on an individual basis to confirm a true allergy. Frequently, a stated food dislike or food preference becomes part of a medical diet order; for example, if an inmate has a stated aversion to beets or mayonnaise, it may be mistakenly recorded as an allergy to these foods. Allergy testing of inmates with suspected food allergy during incarceration is on the rise.

Religious practices and preferences

Diets ordered for religious reasons are not considered medical/therapeutic diets. Religious diets are addressed through a religious authority and administration. Detailed lists of cultural and religious foods, including food practices and meal planning information, can be found in the NCM's Cultural Foods section.

Diet Education

Diet education enables inmates to make independent menu selections, empowering them to be responsible for their individual health. The RDN is typically not responsible for nutrition education of the inmate; instead, the registered dietitian nutritionist provides diet information to medical staff, who reinforce these concepts with the inmate. The NCM client education handouts provide adequate information to support nutrition education of inmates.

When a medical/therapeutic diet is initially ordered for an inmate, medical staff should review the diet with the inmate, who may be required to sign a form acknowledging receipt of the diet education (depending on institutional protocols). Information to be discussed with the inmate includes:

- Purpose of the diet
- Possible complications from failure to follow the prescribed diet
- Facility's noncompliance policy
- The content of the client education handout regarding the therapeutic diet

Transmission of the Diet - From Order to Delivery

Medical/therapeutic diets in the corrections setting are ordered by the medical team, a practice consistent with health care facilities. Diet orders in the corrections settings may contain start and stop dates and are signed by authorized medical personnel. See Medical Diet Requisition Sheet.

There are other factors to consider with regard to transmission of the diet in the corrections setting, such as staffing, preparation, and delivery. Diet trays may be premade, labeled with the inmate's name and/or diet type, and delivered to cell blocks or housing units, or served upon request in the dining hall. If meals are served in the dining hall, it is the inmate's responsibility to pick up the diet tray by coming through the line and requesting it.

Diet Compliance

Medical/therapeutic diets in the corrections setting are ordered by the medical team, a practice consistent with health care facilities. Diet orders in the corrections settings may contain start and stop dates and are signed by authorized medical personnel. See Medical Diet Requisition Sheet.

There are other factors to consider with regard to transmission of the diet in the corrections setting, such as staffing, preparation, and delivery. Diet trays may be premade, labeled with the inmate's name and/or diet type, and delivered to cell blocks or housing units, or served upon request in the dining hall. If meals are served in the dining hall, it is the inmate's responsibility to pick up the diet tray by coming through the line and requesting it.

Menu Planning in Correctional Settings

The following considerations affect decisions during the menu planning process:

- Governing agency standards
- State standards
- Accreditations
- Facility policy
- Court mandates
- Contracts
- Safety issues related to food purchasing, delivery, storage, and preparation

Menus in corrections are cyclical and most often offer higher energy ranges (average 2200 kcal to 2800 kcal) that factor in age, sex, and activity levels of the populations; mandated regulations; tray capacity; equipment; and budgets.

Fortified food items are often served as part of the standard menu to meet nutrient needs in the highly cost-controlled environment. Items such as beverages and baking mixes are often fortified with varying micronutrients such as calcium, potassium, zinc, and vitamins A, C, D and E.

Menu cycles commonly range from 3 to 6 weeks, and up to 12-week cycles with seasonal changes in some agencies. Seasonal changes may correspond with facility garden produce as well. Many have pork-free menus and/or offer meat-free alternative entrees. A 4-week cycle, pork-free menu is most common in jails and detention centers, while prisons often have a lengthier cycle menu and are more likely to offer a meat-free alternative.

Menus may have one, two or three hot meals per day. A meal must include at least one hot item to be considered a hot meal. In correctional foodservice settings that offer less than three hot meals, often the cold meal is a sack/bag meal served at breakfast or dinner to help reduce staffing needs. Some facilities may serve a bag or sack meal to accommodate inmates who leave the facility for work crews/release. Some facilities serve brunch on weekends. There are a few facilities that serve only two meals per day, but still are required to meet all the nutrient needs of the population. Again, all of these variations are based on governing agency regulations and standards' requirements.

When possible, fresh and frozen produce are encouraged over canned, processed items. Given the higher energy content of menus, some facilities/agencies will purchase reduced-sodium meats and soup bases as part of the heart-healthy menu for the main population to reduce overall sodium content to be consistent with the US Dietary Guidelines.

Population Considerations for Menu Planning

In the corrections setting, inmates housing arrangements can be grouped according to age, sex, and degree of crime committed. Correctional facilities may be divided as:

- Adult males and females (usually jails, detention and county prisons)
 - Adult local detention facilities (jails)
 - Adult community residential services
- Adult male or adult female
 - Adult correctional institutions (prisons)
 - Boot camps
- Youth and adolescents (usually up to age 20)—typically housed in the same building, but segregated by sex and classification. Some adult detention facilities house adolescents where often the youth are segregated from adults.
 - Juvenile correctional facilities
 - Juvenile detention facilities
 - Juvenile community residential facilities
- Pregnant females may be housed separately, by medical need or by classification
- Geriatric – Adults 55 and older are considered elderly inmates. Some facilities have a separate unit to house older inmates, while some jurisdictions have specialized geriatric facilities where all older inmates are housed. Many facilities, such as jails or detention, will not differentiate and house by classification.
- Facilities that house youth are classified as residential child care institutions. These facilities often participate in Child Nutrition Programs such as National School Lunch Program and the School Breakfast Program.

Food Limitations Due to Security Risk

Facility regulations may dictate menu items that are limited or prohibited for security risk, such as:

- Knives
 - Knifeless kitchens may have to purchase many pre-sliced or pre-shredded items
- Bones
- Whole fresh fruit, canned fruit
- Fruit juice
- Powdered creamer, pepper, and nutmeg
- Spinach
- Yeast
- Sugar

Items in the list above present security risks for a variety of reasons. Knives and bones present a safety risk because they can be used as weapons. Whole fresh fruit, canned fruit, and fruit juice can be used to make alcohol (also known as “hooch” or “pruno”). Powdered creamer is flammable and can present a risk for fire. Pepper (or other powders) can be used as a weapon if directed at a target’s eyes. In large doses, nutmeg can be used as a hallucinogen to achieve an effect similar to that of lysergic acid diethylamide (LSD). Spinach can be dried and smoked, presenting a risk for fire.

MENU SUBSTITUTIONS

Facilities must have clear, written policies regarding menu substitutions. Menu items should only be changed when there is a valid reason to alter the menu, such as if a vendor is out of product or if there is equipment failure. If substitutions are necessary because of product quality or poor production, this change should happen between serving different cell blocks/housing units. Menu substitutions should be documented on a Menu Substitution Log or a production record that is reviewed by the RDN.

Menu Reviews and Nutrition Analysis

Nationally recognized standards (from the American Correctional Association and National Commission on Correctional Health Care) require menus to be reviewed and approved by the RDN, annually or semi-annually, based on policy, accreditations, or contractual requirements. A computerized nutrition analysis is the most common means to assess menus for nutritional adequacy.

Meal Preparation in the Corrections Setting

The corrections setting differs from other settings in terms of meal preparation because inmates provide labor under the supervision of civilian prison staff. The degree to which inmates participate in foodservice activities varies—this work might primarily comprise sanitation or serving duties or involve baking or full meal preparation. Following are some key areas that should be considered in the training and supervision of foodservice workers, both civilian and inmate, and overall planning for all diet preparation (including medical and therapeutic diets):

- Foodservice skills
- Language barriers
- Literacy levels
- Math skills

Food Preparation Considerations

- Food included in medical/therapeutic diets should be as similar to the main population's menu as possible.
- Food included in medical diets is usually separated from the main population's food before seasoning or adding any fat.
- Standardized recipe guidelines may be developed to accommodate both the main population and those receiving medical/therapeutic diets to minimize production requirements.
- Occasionally, it may be necessary to offer alternative menu items depending on the nutrient content of the main population's menu and any agency or contract requirements.
- Few foods processed with artificial sweeteners are offered. Items such as diet jelly, diet syrup, juice/water-packed fruit, and unprocessed meat are the most commonly available medical diet items.
- Unprocessed or reduced-sodium meats may replace a luncheon meat for a low-sodium, pregnancy, or renal diet.
- Fruit may be served for dessert in place of baked goods for diabetes and low-fat/low-sodium diets.
- Pork-free and meat-free menu alternatives are planned for all meals.

Suggestions for Mainline Self-Selection of Healthy Diets

The following table lists appropriate substitutions for facilities that wish to offer heart-healthy options to inmates who may choose their own diets.

Original Menu Items	Suggested Alternatives
Fried meat, breaded meat, cold cuts, hot dogs, other processed meats including turkey products, commercially processed and convenience entrees, grilled sandwiches	Baked/broiled meat, unprocessed meat, unbreaded meat; reduced-sodium meats, cooked dried beans, peas, lentils (canned beans tend to be costly; if used, they should be rinsed)
Tuna salad, chicken salad	Plain water-packed tuna (rinsed), diced chicken
Foods covered with gravies and sauces	Gravies and sauces as optional items; offer low-fat versions or omit from meal
Foods seasoned with fat and salt	Foods seasoned with herbs and spices, or unseasoned
Vegetables with added butter, margarine, oil, glazes, sauces	Plain vegetables with no added fat or seasoned with dry spice blends

Fried, au gratin, scalloped, or other potatoes cooked with fat	Baked, boiled, or steamed potatoes
Macaroni and cheese	Macaroni plain or with tomatoes
Salads with mayonnaise	Salads without mayonnaise such as cole slaw with low-fat vinaigrette
Regular or creamy salad dressing	Reduced-calorie salad dressing or oil-based dressing
Regular dessert, fruit canned in syrup	Fresh, juice-packed, or rinsed canned fruit; fruit juice
Hot cereal cooked with fat and salt	Hot cereal with no added fat or salt
Cereal with sugar coating	Cereal without sugar coating
Biscuits, croissants	Bread, dinner rolls
Whole milk	Skim or low-fat milk
Sweetened beverages	Unsweetened or artificially sweetened beverages
Butter	Reduced portions of butter; soft, non-hydrogenated margarine

Adapted with permission from Wakeen (2009).

Overview

Home care is a growing industry with an emphasis on shorter patient hospital stays and prevention of rehospitalization. Patients and their families are choosing to remain in the home rather than be admitted to a facility, which dictates additional need for home support (IOM, 2015). The registered dietitian nutritionist's (RDN) role to enhance nutrition care and patient nutrition knowledge can have an impact on the success of patient care in the home care setting. Home care and home health regulations vary from state to state and policies differ between agencies.

Nutrition Assessment and Nutrition Education in the Home

Assessing and educating a patient in the home care setting is much different than in other health care settings. Patients are in the comfort of their own environment with fewer distractions and the RDN dedicates more time to the patient and family. Collecting information about patients' eating habits is more accurate through observation and engaging patient interaction. Within their home environment, patients can show the RDN food labels of commonly used items and can confirm portions they typically consume. It is also helpful to have family members present to contribute to the conversation, which helps the RDN to learn more about the patient's habits and needs, especially if they shop for the household food and prepare the meals. Be aware that some patients may be hesitant to let a stranger into their home even when associated with a home health company. The following sections discuss some key points that may be helpful putting patients at ease while scheduling and completing your visit.

Coordinating Appointment Times

Many people get uneasy from the idea of working with an RDN because they perceive the RDN role as one of imposing restrictions and rules. Therefore, it is essential to use an open, nonthreatening approach with “customer focus” goals. When calling the patient to make your appointment, discuss how the home health agency, or doctor, would like you to visit to provide ideas for foods that will help them. This brief conversation is to set up the appointment and not start the assessment process. Here are a few simple tips to remember:

- Before calling the patient, verify the agency’s procedures and general expectations.
- It is best to contact the patient as soon as possible to schedule the appointment. A good standard to use is to call within 24-48 hours of the home health agency’s initial consult and schedule a visit to occur within the following 7 days.
- Introduce yourself and your title along with the name of the home health agency. The patient will likely recognize the name of the home health agency and understand it is not a sales call.
- Make sure to inform the patient that the home health agency asked you to visit. If you know details about why you have been assigned to work with this patient, you can include that in your initial call; keep in mind that some patients will automatically be put off by use of the term “diet” and may refuse your home visit. Consider approaching the patient by explaining, “They have asked me to visit so that I can give you some ideas on how to best eat during this time of healing,” or “... to give you some ideas for foods that will help heal your wound,” or “...to give you some ideas on how to keep your blood sugar stable.” This approach sounds less like you will be imposing a diet and more like you will help them.
- Give them two potential dates and times that you are available so that they will make a firm commitment to a time that works with your schedule. Inform them of the anticipated duration of the visit.
- Have a script ready to excuse yourself from the phone call if the patient or family member tries to engage you in beginning your evaluation over the phone or attempts to discuss details that will be addressed during your visit. Politely remind them that you consider these details to be important information that you would like to hear more about during your visit.
- Let them know you will call them the day of your visit and emphasize that they need to pick up the phone to confirm they are home before you drive to their house.

Preparing for a Home Care Visit

- Know the purpose of your patient visit before you go. Call the home health agency if this information is not listed on the consult. Note that the purpose of your visit may be simply to assess/promote general good nutritional health and not to address a specific medical diagnosis.
- Develop an NCM toolkit of client education handouts frequently used in home health
 - A home care registered dietitian nutritionist should bring a variety of education handouts to use for client teaching. Handouts should include information about medical nutrition therapy, ideas for healthy snacking, food safety, and label reading. See Client Education section to print these resources.
 - Different agencies may have different requirements for forms (for example, paper vs electronic).
 - Be prepared for the possibility that you may be unable to complete the assessment during your visit.
- Always call before going to the patient's home. Many home care patients are elderly and may forget about their appointments or they may have even been readmitted to the hospital.
- If the home health agency has a communication form or "route sheet," be sure to take that with you for the patient to sign. Some agencies request a signature on a Health Insurance Portability and Accountability Act consent form.
- Coordinating your visit with another discipline, such as a nurse visit, is another approach that can be effective, especially if the home or location is questionable.

Home Food Safety For Seniors

The registered dietitian nutritionist (RDN) has the unique opportunity to go into a patient home and learn a client's food habits extensively. The details obtained may include usual products used, cooking and food storage knowledge, and kitchen cleanliness. This is important information because older adults, especially those older than 75 years and those with one or more chronic diseases, are at a greater risk for foodborne illness or food poisoning.

Specific behaviors to look for may include the following:

- Leaving animal protein foods on the counter to thaw at room temperature
- Leaving Meals on Wheels deliveries or other perishable foods on counter to be eaten later
- Keeping perishable foods in the refrigerator past the use-by date
- Filling a refrigerator with food to the point that air cannot properly circulate through it
- Having a dirty refrigerator, stove, and microwave
- Having dirty counter tops, dish towels, and sponges
- Not keeping handwashing soap near kitchen sink

The RDN can consider some basic food safety teaching along with the prescribed MNT. Reviewing the Home Food Safety for Seniors client education handout, discussing concerns, and evaluating client comprehension may help reduce the risk of an avoidable illness.

Any major issues may need to be addressed with the agency's nursing and/or social service departments, as they may be a sign of cognitive impairment or neglect and warrant the need for more services or monitoring.

Home Care Online Resources:

US Food and Drug Administration Food Safety for Older Adults

US Department of Agriculture Life Stages: Older Individuals

Role of the RDN

Hospice provides care for terminally ill patients at any age and for any illness as long as there is well-documented decline. Hospice care does not focus on rehabilitation or curative measures; rather, hospice care involves

- Comfort care
- Medical care and symptom management
- Emotional, spiritual, and clinical support
- Nutrition guidance for comfort care
- Supportive interdisciplinary team

Hospice is tailored to patients' needs and wishes within the means of comfort to provide support to patients, families, and care givers. The hospice team should have a consistent understanding on common nutrition related concerns to provide reinforcement and support to those involved. Medicare guidelines for hospice care note that dietary counseling can be provided by "qualified individuals." A hospice registered dietitian nutritionist (RDN) is the most likely qualified individual. The RDN's role in the hospice setting may include:

- Assessing and documenting patient's nutritional status
- Counseling and educating families on end-of-life nutrition concerns
- Training hospice staff on nutrition topics so that they may provide nutrition care when the RDN is not available
- Assisting in symptom management
- Attending and participating in interdisciplinary team meetings
- Educating and supporting non-hospice RDNs in the community in understanding differences in goals of care in this post-acute setting and adapting the hospice plan of care
- Participating in coordination of care
- Providing training to the health care communities on relevant topics such as "end of life nutrition," "feeding hospice patients," and "avoiding force feeding"

Nutrition Care

Initial nutrition assessment provides baseline data to measure a hospice patient's decline and to identify initial nutrition interventions. Together the hospice team and the RDN monitor and document the following variables while assessing and monitoring the patients' nutritional decline:

- Details regarding food consumption
 - Diet consistency
 - Measurable amount consumed
 - Frequency of meals/snacks
 - Dining setting (in room vs in dining room)
 - Dining companions (alone or with family, friends, or strangers)
 - Staff time involved in assisting with eating
 - Eating skills and use of adaptive equipment
 - Desire to eat and reported appetite
 - Do they state they are not hungry?
 - Do they get full easily?
 - Do they state they have a good appetite?
- Patient's weight
 - Obtain and document the following measurements to accurately track decline and assist with recertifying patients for Medicare.
 - Usual weight prior to illness (for comparison of each month's weight)
 - Actual weight (unless obtaining causes patient pain)
 - Weight change over past 1, 3, 6, and 12 months
 - Body mass index

- Mid-arm circumference on both arms (baseline and monthly)
 - Muscle wasting
 - Fat wasting
 - Loose clothes
- Other nutrition measures of decline
 - Swallowing difficulty/dysphagia (coughing, aspiration)
 - Inability to chew
 - Taking longer to eat
 - Rapid fatigue/sleeping during meals
 - Lack of desire for foods
 - Eating in room (away from community)
 - Early satiety
 - Refusing food (showing signs of resisting food)
 - Needing frequent cueing during meals
- Conversations with patient and family
 - Assessment process
 - Concerns, questions, and goals
 - Nutrition education provided
 - Awareness and comprehension following nutrition education/discussions
 - Patient's expectations and goals regarding end-of-life nutrition

It is important to investigate the root cause of symptoms in order to provide appropriate nutrition interventions. Interview and observe patients, caregivers, and staff while assessing potential causes. The patient's surroundings and other environmental factors can add to these symptoms. Include all potentially relevant variables when discussing potential interventions with the hospice care team, family, and patient.

After interventions are determined, monitor responses to interventions and make adjustments as indicated. Consider the following when assessing the effectiveness of the interventions:

- Successful approaches to intervention with this specific patient
- Suspected reason an intervention hasn't worked, if applicable
- Whether an intervention should be adjusted in some way or retried?
- Alternate interventions available

Monitor the patient's response and document any changes to the care plan.

The Hospice RDN's Role in Patient/Family/Staff Education

The opportunities for the registered dietitian nutritionist (RDN) to provide nutrition education in the hospice setting are multiple, including both informal and formal situations. The RDN can provide helpful guidance to the patient, family, and staff regarding these frequently encountered issues.

○The right to refuse diet order and interventions:

- As in all health care settings, the patient has rights to refuse treatment. According to the regulations, the diet order, supplement orders, and the act of eating are defined as treatments. A patient may often decline to eat meals, and this must be respected. The RDN can provide support to the patient, family, and staff when the patient is refusing meals, supplements, snacks, and other nutrition treatments (Selde, 2015; O'Sullivan Maillet, 2013).

○Prioritization of nutrition needs

- The pleasure of eating can contribute to a person's quality of life. A restrictive diet is typically used for the treatment of a chronic disease and is not associated with high palatability or quality of life. Ensuring adequate intake takes priority over adherence to a restrictive diet; therefore, diet liberalization is commonly recommended for hospice patients. See Diet Liberalization section.

○Honoring the patient's dignity

- Honoring one's dignity is respecting their wishes. It is a show of disrespect to undermine someone's end-of-life wishes, especially if they have been clearly communicated. This includes honoring their right to eat or not to eat. Food should certainly be offered to hospice patients; however, it is respectful to allow them to not eat if this is what they wish.

○Using guilt to make a patient eat

- Often at the end of life, the hospice patient is still seeking ways to show love to family before passing. When eating is aggressively encouraged, the hospice patient often will eat out of guilt as they do not want to show resistance or make their loved ones feel bad. The family needs to understand that imposing guilt on the patient is counterproductive and actually increases pain and. Encourage the family to instead focus their efforts on positive interactions, such as

recalling good memories. Nurturing without food but instead with love can be learned and perfected with encouragement from the hospice team.

- o Force feeding or pushing foods/fluids
 - See Managing Symptoms.

Managing Symptoms

Registered dietitian nutritionists (RDNs) in a hospice setting should expect to have frequent discussions with staff and families regarding symptom management and end-of-life nutrition. Use this section, which reviews common symptoms at end of life, to inform how to approach these interactions.

Weight Loss

Weight loss is typically part of the normal course of dying, yet some symptoms may be controlled to slow this process, making the weight loss less dramatic. The RDN should assess the patient's individual goals, including a dialogue as to whether they agree with potential interventions for symptom management. Speak with the patient and/or family to identify potential contributors to weight loss, such as:

- Swallowing difficulties
- Taste changes
- Medication side effect
- Early satiety
- Lack of ability to feed self
- Minimized availability to food
- Lack of knowledge regarding appropriate foods
- Financial obstacles
- Depression or mood changes lowering desire to eat
- Social pressures related to food and meals
- Lack of socialization at mealtime; loneliness
- Distractions during meal time
 - Constipation
 - Diarrhea
 - Bloating
 - Fluid overload
 - Dry mouth

If patient nausea/vomiting is suspected of contributing to weight loss, assess if contributing factors such as the following are present:

- Constipation
- Bowel obstruction
- Medications
- Long periods of time with stomach completely empty
- Forced feeding
- Uremia

- Diagnosed condition that affects the gastrointestinal tract
- Underlying disease process and progression

Address—ideally, reverse—underlying cause and use anti-nausea medications, which can be given rectally if patient is unable to take by mouth due to vomiting. Timing of the anti-nausea medication can be key in relieving nausea during mealtimes. See Tips to Reduce Nausea.

Loss of Appetite/Poor Oral Intake/Early Satiety

There are many reasons for loss of appetite during the end of life:

- Less active = Less metabolic stimulation = Lower energy and fluid needs
- Tissues and organs are no longer developing/growing, which means energy needs lessen
- The natural process of dying slows the body's systems down, decreasing the appetite
- Weakened sense of taste leads to taste changes, and typically eating no longer brings pleasure

Lack of understanding and/or fighting against the body's natural aging processes often causes significant discomfort to patients both emotionally and physically.

- Forcing food and fluids may be uncomfortable, as foods may not be properly processed, resulting in a variety of uncomfortable symptoms, such as fullness, nausea, vomiting, diarrhea, bloating, cramping. In turn, it compromises patient dignity.
- Patients may experience emotional frustration related to knowledge of disappointing family members as well as the knowledge that they are confronting their inevitable decline.

Force feeding is counterproductive to the hospice philosophy and does not reverse the dying process. At this point in the patient's life, there should be less concern about a patient's intake of a balanced diet and sufficient food and there should be more focus on comfort, allowing them to determine what, how much, and how often they eat and drink. Though it may seem counterintuitive, most approaches to comforting hospice patients do not involve food. An emphasis on nurture provided through human touch or demonstration of appreciation of the patient's life is something hospice can assist the family in understanding and providing.

In some situations, weight loss can be slowed but it is rare to stop weight loss as the body prepares for its last days. Therefore, emphasis should be on comfort and patient should not be pressured about the amount of food or what food is consumed.

Tips for feeding hospice patients who still desire food:

- Listen to their stated preferences and provide the foods that bring them pleasure
- Add energy to the foods the patient already enjoys and is able to eat comfortably (see High-Calorie, High-Protein Nutrition Therapy)
- Offer small amounts of cool, easy-to-chew, and easy-to-swallow foods
- Serve foods at the patient's best time of day to eat
 - For example, if the patient eats best at breakfast time, have a breakfast high in energy readily available every morning)
- Create a bright and pleasant eating environment with minimal distractions
- Eat with the patient in a relaxed environment, not pressuring them to eat
- Encourage family to participate in feeding the patient (observing cues to feed or not to feed)
- Serve foods that promote regular bowel movements as constipation can cause loss of appetite
- Don't limit foods they like (even if that means three bowls of ice cream at night)
- Offer small, frequent servings of foods throughout the day when patient is alert and desires to eat
- Provide alcohol if it is desired and permitted, as this may provide enjoyment to the patient while helping to stimulate appetite
- Serve reasonable portions; portions that are too large can minimize appetite
- Ask the patient about how food smells affect them, as they may never mention their discomfort. Serving foods with a strong odor, especially when cooking those foods for a meal, may eliminate appetite.
- Keep tasty, nonperishable foods at patient bedside, such as nuts, candies, or other high-energy snacks. If the food is visible to the patient, there is a higher likelihood it will be eaten.
- Encourage walking if the patient is able, as activity may stimulate the appetite

Use of appetite stimulants is contraindicated in hospice patients, as there is no evidence of improved quality of life. There is a natural decrease in appetite in near-death patients, but it has not been linked to discomfort. A 2014 review (Sera, 2014) of the records of 293 elderly patients and 6,181 medication entries revealed that only 28 patients were prescribed appetite stimulants, and only one-third of these were prescribed by a hospice organization.

Dysphagia/Aspiration

It is very common for hospice patients to experience dysphagia as they decline, and texture modification may help improve intake. Working with the patient, family, and team, the RDN can provide guidance for possible interventions including:

- Describing different appropriate mechanically altered diets
- Suggesting simple, set meal plans including clear liquids and full liquids
- Positioning, cueing, and assisting patients during mealtime
- Monitoring for pocketing and other signs/symptoms related to new swallow concerns
- Ordering a speech therapist consult
 - Though this is typically considered a rehabilitative measure, at times one visit may be allowed to assist with evaluating potential quality-of-life choices. The speech therapist may also provide educational support to the team and to the patient/family.
- Allowing patient to eat what they want
 - If patient is content with the diet texture, it may be safest to keep them on that diet
 - The patient has the right to refuse to eat or to choose a diet that makes them comfortable even if it is not an appropriate diet in relation to patient's health status.
- Educating patient or patient's caregiver/decision-maker about pros and cons of following specific diets
- Honoring quality of life

Refer to the Texture Modification section for diet texture details.

Diarrhea, Malabsorption, and Bloating

Diarrhea and malabsorption may lead to loss of nutrients and energy and weight, but more importantly, they may cause discomfort. Diarrhea and bloating may be caused by irritants such as:

- Certain medications
- Chemotherapy
- Stress
- Infections
- Unsafe food handling
- High-fiber foods
- Alcohol
- Overfeeding
- Rate of consumption or infusion
- Greasy foods.

Identifying the cause is the best way to treat diarrhea. Management of the diarrhea varies depending on each individual situation. See Diarrhea Nutrition Therapy.

Constipation/Bloating

Constipation is a common problem with individuals who have decreased intake by mouth and decreased mobility. This problem is especially compounded by

the addition of pain medications. Specific foods and fluids are not enough to prevent constipation and medication is often needed.

- Have the patient drink a hot beverage or eat hot cereal first thing in the morning.
- Add unprocessed bran to foods. Start with 1 teaspoon bran added to cereal.
- Add flaxseed to foods. Start with 1 tablespoon ground flaxseed or flaxmeal added to cereal or applesauce.
- Serve the patient a few dried or stewed prunes or drink prune juice.
- Slowly increase the amount of fiber that the patient eats. Over the span of a few days, increase patient's fiber intake by no more than 5 g.
- Consider administering stool softeners and laxatives

See Nutrition Tips for Constipation.

Hiccups

Hiccups can be very uncomfortable, especially when they interfere with eating and sleeping. Hiccups can be caused by an irritation of the phrenic nerve and worsened if excessive air is swallowed. Ice water may help to stimulate the vagus nerve, which may decrease the hiccups. Breathing into a paper bag is an old trick to stop hiccups that still works for some, but if hiccups are severe, medications may be needed. Some medications that have been used successfully include (Thompson, 2014):

- Chlorpromazine (Thorazine)
- Haloperidol
- Baclofen
- Metoclopramide
- Gabapentin

Taste Changes

Taste changes are common with various conditions and medications and often cannot be controlled. The best way to address this is to keep track of which foods/fluids trigger a negative taste in the mouth and avoid serving those. Also, foods/fluids the patient may have previously not liked may suddenly be appealing. It may be helpful to trial small amounts of various foods to see which ones are palatable and keep the list handy for caregivers and other family members who prepare food for the patient.

Dry Mouth

Dry mouth is a common discomfort for patients who are not drinking very much. Maintaining frequent mouth care, keeping the mouth and lips moist, can

help minimize the sticky dry mouth feel. Sometimes ice chips or sips of water may also be helpful.

When the body's metabolism begins to slow down and the natural dying process begins, it is common for appetite and thirst to decrease and eventually be completely nonexistent. As the body goes into a catabolic state, it no longer builds but begins to break down and foods are often not absorbed well. The body slowly becomes "comfortably dehydrated." This is the body's way, as it shuts down, to prevent further distress and discomfort from congested lungs, excessive secretions, nausea, vomiting, bloating, diarrhea, fluid buildup around the body, excessive trips to the bathroom, rattling secretions, and shortness of breath. Therefore, the dying patient is often more comfortable being dehydrated, assuming appropriate mouth care and overall comfort are provided. The process of not eating and drinking is not painful as the body goes into a euphoric state after a few days without food or water. Natural painkillers are produced, as the body takes in less food, creating endorphins, which are endogenous opioids (natural morphine like substance). Assess for comfort and symptoms management.

So often loved ones, despite good intentions, do not understand this natural process and actually cause more discomfort than comfort. US culture equates food with love and nurturing and the need to do something for a dying loved one is very strong. However, understanding the process of dying is the best way to allow for a comfortable death. Loved ones at this time can focus their efforts on nurturing the patient in other ways that would be comforting such as massage, singing, reminiscing, or just being present.

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