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Just In

Food Guide to Climate Change & Health

Environmental Working Group, an organization that focuses on the impact of environment on health, partnered with CleanMetrics, an environmental analysis firm, to perform a life cycle assessment of 20 types of meat, fish, dairy and vegetables to determine their carbon footprint (impact on greenhouse gas emissions.) Lamb, beef, cheese, pork and farmed salmon generate the most greenhouse gases. With the exception of salmon, they also have the worst environmental impacts because their production requires the most resources (chemical fertilizer, feed, fuel, pesticides and water) and generates more manure, as well as negative health impacts. Meat, eggs and dairy products that are certified organic, humane and/or grass-fed are generally less environmentally damaging and better for health. Plant-based foods such as broccoli, tofu, beans, tomatoes, and lentils, in addition to 2% milk, offered the greenest and healthiest choices. [EN](#)

Source: Environmental Working Group, read full report at www.ewg.org

Keeping Cancer at Bay with Diet

Cancer is stubborn; ask anyone who's had it. You hope it's gone for good and then it comes back. But thanks to advances in medicine and early detection, the future is much rosier than it used to be for cancer victims. The cancer death rate in this country has declined steadily since the 1990s. The overall survival rate for all cancers for five years is about 65 percent, even more for breast and prostate cancers. There are now over 12 million survivors in the U.S.—most looking at a variety of strategies to help keep cancer at bay. *EN* explores the latest science on lifestyle factors that help prevent cancer recurrence.

What causes cancer? According to the American Institute for Cancer Research (AICR), cancer is not a single disease with a single cause—there's more to it than eating a poor diet or getting fat. Other contributors include environmental

factors like pollutants, radiation and toxic contaminants, smoking, gene variants, age, and certain infections. Still, it is estimated that approximately one-third of cancer deaths in the U.S. are related to poor nutrition, physical inactivity and excess weight—all modifiable risk factors.

Does it matter if you're fat? Yes, it does—for all cancers. According to the National Cancer Institute, obesity is related to increased risk for cancers of the colon, uterus, kidney, esophagus, stomach, breast, gallbladder, ovaries and pancreas; 14 percent of deaths from cancer in men and 20 percent in women are due to overweight or obesity. According to David Heber, M.D., Ph.D., professor of medicine at UCLA Center for Human Nutrition, there is a clear association between obesity and cancer risk, incidence, or progression for a number of common forms of cancer. A 2006 article *(continued on page 4)*

Diet Spells R-E-L-I-E-F from IBS

Abdominal pain, bloating, discomfort, constipation, and diarrhea are the all-too-familiar symptoms that people with irritable bowel syndrome (IBS) must live with. The disorder significantly affects both the quality of life and productivity for an estimated seven to 10 percent of the U.S. population, making it the most frequently diagnosed digestive disorder. In fact, IBS is such a miserable condition, that a nationwide survey of IBS patients commissioned by the International Foundation for Functional Gastrointestinal Disorders found that patients often consult a series of doctors before being correctly diagnosed, and use nearly 300 different types of prescriptions and medications in an attempt to find relief. Nearly 45 percent note severe symptoms, 40 percent complain of moderate pain, 71 percent report two or more episodes of IBS per week, and half report daily events.

A difficult diagnosis. In the past, health professionals considered IBS a “wastebasket” diagnosis, handing out the label when the symptoms couldn't be explained by anything else. Though there is still no biological marker or test for IBS, more knowledge about the condition is slowly emerging. IBS is now considered to be part of a group of disorders classified as functional gastrointestinal disorders, which also includes functional bloating, functional constipation, functional diarrhea, and unspecified functional bowel disorder.

After other conditions have been ruled out, the established criteria for diagnosis of IBS is suffering (for at least three months, with onset at least six months previously) at least two of the following three conditions: recurrent abdominal pain or discomfort that improves after defecation, discomfort or pain that occurs along with a change in the frequency of stool, *(continued on page 6)*



Nutrition Science: Reading Behind the Headlines

Fruits and vegetables don't protect against cancer"; "calcium supplements cause heart attacks"—just two examples of recent headlines that appeared in the popular press. Thanks to the swelling public interest in the prevention of disease through diet, just about every magazine, newspaper and website reports on nutrition science. But sometimes this glut of news is conflicting, leaving you to wonder, "What am I supposed to eat?"

"Ten or twenty years ago, health research was mostly reported through medical journals that were mainly read by health and research professionals who issued the final word on a topic. Now people get access to the initial studies instead of the final word," says nutrition researcher Howard Sesso, Sc.D., Associate Epidemiologist at Brigham and Women's Hospital and Associate Professor of Medicine at Harvard Medical School. "In nutrition science, you don't always have

the same results in study after study. This is problematic; people may then begin to distrust the sometimes conflicting findings they hear."

Nutrition science 101. In order to determine whether that vitamin C study you just read about is meaningful, let's step back for a refresher course on the principles of research. Nutrition research starts with posing a great question (known as a hypothesis,) and then sets out to discover facts that help answer it through observation or experimentation, collection of data, and analysis. There are different types of research—here's a brief look at the basics.

- **Observational research** investigates the relationships between factors in groups of subjects with regard to health. For example, an observational study might look at the relationship between heart disease and vitamin C intake in a group of females.
- **Experimental research** studies subjects—whether human or animal—that are randomly assigned to either an *experimental group* (given the treatment) or a *control group* (given placebo or no treatment.) The difference in the results between the two groups can then be attributed to the treatment. Experimental research is divided into two types: *basic research* and *clinical trials*.
- **Basic research**, which may be conducted in vitro (in test tubes) or with animals, investigates biochemical substances or biological processes, usually to understand how a particular process works. For example, an experiment might be conducted on rats that studies how vitamin C helps reduce oxidation, which plays a role in heart disease.
- **Clinical trials** are studies of human subjects that involve the measurement of variables compared to a control group. For example, a clinical trial might investigate the results of vitamin

C supplements on oxidation levels in a group of adults, compared with a similar group that receives no vitamin C supplements.

- The "gold standard" is a randomized, double-blind, placebo-controlled study, which uses random assignment of subjects to experimental and control groups; neither the subjects nor the persons administering the experiment know the critical aspects of the experiment, so as not to create a bias.

The nutrition science path. According to Sesso, nutrition research typically follows a course: scientists notice a relationship between diet and health through observational research that generates a hypothesis, they investigate the mechanism behind this relationship in test tubes and animals, and then they bring it to human clinical trials—starting with smaller groups and moving to larger groups. The research that occurs before it gets to the human trial phase is important—it establishes a fundamental understanding—but it is preliminary; you can't "hang your hat" on the evidence. And then there's publication; it must be published in a journal that is peer-reviewed—that means a group of qualified individuals in the same field has evaluated it. Scientific consensus from government and health organizations, such as the U.S. Food and Drug Administration, comes when a large enough base of research has been published, which can take a long time.

"You can take vitamin D as an example; there are lots of good mechanistic and observational studies, but there haven't been a lot of large-scale clinical trials targeting vitamin D. The Institute of Medicine issued a report on vitamin D that was middle of the road—suggestive of benefits, but warning consumers to not take mega-doses until there were more clinical trials," reports Sesso. [EN](#)

—Sharon Palmer, R.D.

Putting Nutrition Science into Perspective

Our nutrition science expert, Howard Sesso, Sc.D., offers tips on how to put nutrition science into perspective.

- ▶ **Remember, one study doesn't decide the truth.** No matter how large and expensive the study, a single research finding should not be the basis for changing your diet.
- ▶ **Consider less specific research findings first.** Instead of focusing on research that looks at single foods or nutrients, look at research findings on a dietary pattern, like the Mediterranean diet.
- ▶ **No single change can make all the difference.** In all likelihood, there's no one pill, one nutrient, or one food that will cure every disease.
- ▶ **Trust clinical trials more than animal studies.** Look beyond the headlines to the study design—if it's animal research it may not be definitive.

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B *Environmental Nutrition* (ISSN: 0893-4452) is published monthly by Belvoir Media Group, LLC, 800 Connecticut Avenue, Norwalk, CT 06854-1631; www.environmentalnutrition.com. Robert Englander, Chairman and CEO; Timothy H. Cole, Executive Vice President, Editorial Director; Philip L. Penny, Chief Operating Officer; Greg King, Executive Vice President, Marketing Director; Ron Goldberg, Chief Financial Officer; Tom Canfield, Vice President, Circulation. © 2011 Belvoir Media Group, LLC. Postmaster: Send address corrections to *Environmental Nutrition*, PO Box 8535, Big Sandy, TX 75755-8535.

Regular Subscription Rates: \$39 in U.S., \$49 in Canada (U.S. \$ only). Single copy, \$5. Subscriptions, change of address and customer service: Visit www.environmentalnutrition.com/cs. *Environmental Nutrition*, PO Box 8535, Big Sandy, TX 75755-8535 or 800-829-5384.

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Get Optimal Triglycerides with Lifestyle

When you visit your physician for your annual checkup, you probably eagerly await the results of your LDL (“bad” cholesterol) and HDL (“good” cholesterol) levels, hoping that they fall within normal range, thereby reducing your risk of heart disease. But there’s another blood lipid (or fat) that’s just as critical: Triglycerides. In fact, triglyceride levels are an important indicator of your metabolic health; high levels are linked with coronary heart disease, diabetes, and fatty liver disease. A study published in *Annals of Internal Medicine* in 2007 showed that in younger persons the highest levels of triglycerides corresponded with a four-times greater risk of heart disease and stroke risk compared to similar individuals with the lowest levels of triglycerides. And if you have a triple whammy—high triglycerides, high LDL, and low HDL—you are at even greater risk for heart disease and stroke.

Fix your triglyceride problem with lifestyle changes. The good news is that if you have high triglycerides, you can easily reduce them through lifestyle changes. Ac-

ording to an April 2011 American Heart Association (AHA) disease statement on triglycerides, which took into account more than 500 scientific studies, diet and lifestyle changes—such as substituting healthy fats for unhealthy saturated and trans fats, engaging in regular physical activity, and losing excess weight—can reduce triglycerides by 20 to 50 percent.

The current triglyceride guideline from The National Heart, Lung, and Blood Institute’s National Cholesterol Education Program (which is currently undergoing revision with an anticipated update by late 2011) considers anything over 150 mg/dL to be high—and nearly one-third of U.S. adults have triglyceride levels in this range. But the recent AHA statement makes a recommendation to further reduce optimal triglyceride levels from <150 mg/dL to <100 mg/dL. [EN](#)

Lifestyle Choices for Optimal Triglyceride Levels

According to AHA, these strategies can make a serious impact on your triglycerides.

- ▶ **Lose weight.** Even a five to 10 percent weight loss can result in a 20 percent decrease in triglycerides.
- ▶ **Healthy eating pattern.** Focus on an eating style that limits sodium, solid fats (such as full fat dairy products, meat and coconut oil), added sugars, and refined grains and emphasizes nutrient-rich foods such as vegetables, fruits, whole grains, low-fat dairy, seafood, lean meats and poultry, beans, nuts and seeds.
- ▶ **Be choosy about carbs.** Foods that contain high amounts of simple sugars, especially fructose (found in high levels in sodas, dried fruits, agave, and honey) raise triglycerides.
- ▶ **Choose healthy fats.** Shun saturated fats found in animal fat and coconut oil and trans fats found in some fried and baked goods in favor of unsaturated fats found in vegetable oils, avocados, nuts, and fish.
- ▶ **Avoid alcohol.** In high amounts, alcohol raises triglycerides.
- ▶ **Get active.** Aim for at least 30 minutes of moderate-intensity physical activity on five or more days.
- ▶ **Supplement strategies.** The most promising triglyceride-lowering supplement is fish oil, which is a source of the omega-3 fatty acids EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid.) In a 2007 review of 47 randomized trials published in the *International Journal of Cardiology*, researchers concluded that fish oil significantly reduces triglyceride levels. The AHA recommends consuming at least 3.5 ounces of fish twice a week, with possible supplementation under your physician’s guidance.

You Should Know

Behind the Heart-Check Symbol

If you’re in the habit of looking for the familiar checkmark enclosed in a red heart before you drop a food into your shopping cart, you’re not alone. The American Heart Association’s

heart-check icon, which has been gracing food packages since 1995, has become the most recognized and trusted symbol on food packages. In fact, 83 percent of consumers recognize this



symbol and 63 percent trust it, according to survey results presented at the Oldways

Supermarket Dietitians Symposium in Santa Rosa, CA on March 31, 2011. When consumers were asked which organization they most trusted to display health symbols, logos, messages or food packages, the AHA won out over the U.S. government, an independent panel of scientists and nutritionists, a consumer advocate organization, product manufacturers, and a group of food industry experts.

Any time it shows up on a food package, that heart-check means that the food adheres to a strict set of criteria developed by the AHA, which also aligns with government regulatory requirements. The food product must be reviewed before certification is granted by the AHA to use the symbol. [EN](#)

Heart-Check Criteria for Certified Foods

	Standard	Whole Grain	Meats/Products
Total Fat	3 g or less	Less than 6.5 g	Less than 5 g
Saturated Fat	1 g or less	1 g or less	Less than 2 g
Trans Fat	Less than 0.5 g	Less than 0.5 g	Less than 0.5 g
Cholesterol	20 mg or less	20 mg or less	Less than 95 mg
Sodium	480 mg or less	480 mg or less	480 mg or less
10% Daily Value	At least 10% DV*	At least 10% DV*	At least 10% DV*
Whole Grain	N/A	51% or more by weight	N/A
Min Dietary Fiber (whole grain only)	N/A	1.7 g/RACC of 30 g 2.5 g/RACC of 45 g 2.8 g/RACC of 50 g 3 g/RACC of 55 g	N/A

Source: American Heart Association. Note: Meats/Products contain meats or seafood. Meals and main dishes are subject to additional criteria. Amounts listed are based on RACC (Reference Amount Customarily Consumed,) as defined by labeling regulations. *DV= Daily Value; contains at least one naturally occurring nutrient, including protein, vitamin A, vitamin C, calcium, iron, or dietary fiber.

Keeping Cancer at Bay with Diet

(continued from page 1)

in *Obesity Reviews* reported that there is enough evidence to suggest that weight management should be part of the strategy to prevent the occurrence, recurrence and death risk of breast cancer.

Diet-cancer connections. Diet accounts for 25 percent of cancers in developed countries, according to a 2011 review published in *European Journal of Cancer Care*. But is it what we eat or what we don't eat that is to blame? The body of scientific research on dietary patterns and cancer is intriguing.

In a 2007 study published in the *Journal of the American Medical Association*, researchers observed 1,009 patients for two years, and discovered that a Western diet pattern (high intake of meat, fat, refined grains, and desserts) after cancer diagnosis was associated with a significantly worse risk of disease-free survival, cancer recurrence, or death. The Women's Healthy Eating and Living Study (*Journal of the American Medical Association*, 2007), a randomized controlled seven-year study that examined whether a diet high in vegetables, fruit and fiber and low in fat could have an impact on cancer survival after treatment for early stage breast cancer, showed that eating five to seven servings/day of fruits and vegetables did not reduce additional breast cancer events or death in study subjects. In contrast, the Women's Intervention Nutrition Study, a long-term randomized study, found a 24 percent reduction in risk of breast cancer recurrence for women on a low-fat diet.

Most studies on preventing first cancers show a strong relationship between prevention and eating a diet high in fruits and vegetables, while red meat seems to increase cancer risk. Demark-Wahnefried, Ph.D., R.D., associate director, University of Alabama Comprehensive Cancer Center, says, "There is less convincing evidence against red meat than before, but people definitely should not be grilling or charring the meat, and we still recommend against processed meats." Scientists don't have all the answers yet, although they continue to recommend a diet high in fruits, vegetables and whole grains, and low in fat and refined carbohydrates to reduce cancer risk.

Sugar and cancer scenario. You might have read that sugar "feeds cancer cells."

To most of us, sugar is that white granulated stuff we use to sweeten our foods. But in this case, sugar really means glucose found in blood. Cancer cells use a lot of glucose, so high blood glucose, which is promoted by overweight and refined carbohydrate intake, could contribute to first and recurring cancer risk. People who are overweight may have a condition called insulin resistance that results in higher than normal circulating insulin levels, which can help cancer cells consume glucose and grow.

Because of the glucose/cancer relationship, there has been interest in using the Glycemic Index (GI), a system that ranks carbohydrate foods according to their effect on blood glucose, to treat cancer survivors. Scientists reported in the 2009 issue of *Journal of American College of Nutrition* that the GI might be a useful tool for management of body weight and associated chronic diseases, including cancer. But, to date, the research results of GI on cancer risk have been conflicting. One of the problems is that people who eat high-GI foods (those that raise blood sugar the most) likely eat less fruits, vegetables and whole grains, so it's difficult to know whether it's the high-GI diet or the poor diet in general that promotes cancer recurrence.

Do supplements help? Dietary supplements or single nutrients, including vitamin D, omega-3 fatty acids, selenium, calcium, resveratrol, fiber, and antioxidants like vitamins E and C, as well as

food components like soyfoods, coffee, garlic, green tea, cruciferous vegetables (i.e., broccoli and cabbage,) berries, flax, grapes, and spices are under study to see if they can keep cancer survivors healthy longer. To date, however, there are no solid recommendations for using supplements to ward off future cancers, even though as many as 80 percent of cancer survivors report taking supplements during their treatment and recovery.

Remember, more is not always better. Antioxidants like vitamins C and E that protect healthy cells might also protect cancer cells from destruction by cancer treatments. Soy has been shown to be protective in some cases, but in women with estrogen-dependent cancers, large amounts are controversial because of soy's plant estrogen compounds. AICR recommends against using supplements to prevent cancer. According to Karen Collins, M.S., R.D., C.D.N., nutrition advisor to AICR, the only exception might be vitamin D, but she cautions that more research is needed to clarify dosage recommendations.

Surviving chronic disease. Those who survive cancer are at higher risk for having a second cancer, as well as other chronic diseases, such as heart disease and diabetes, due to genetic factors and as a consequence of treatment, according to Demark-Wahnefried. Diana Dyer, M.S., R.D., author and expert known as the "cancer dietitian," says that she emphasizes the importance of making diet choices that improve your general health and well-being, as well as reduce the risk of chronic diseases that may be a result of cancer therapy. AICR strongly advises cancer survivors to include physical activity along with a balanced, plant-based diet in their health maintenance routine in order to reduce the risk of heart disease and diabetes.

Bottom line. "One thing's for sure; there are no easy or obvious magic bullets with nutrition, foods and dietary supplements," says Dyer. The recommendations for preventing heart disease and diabetes are really no different from those for preventing cancer: eat smart, move more, and stay lean. Collins suggests, "Focus first on priorities of aiming to reach a weight that is healthy and achievable." She recommends that you emphasize regular exercise and eating fruits and vegetables; then, if you'd like to add some new nutritional strategies like drinking green tea, go ahead. [EN](#)

—Sharon Salomon, M.S., R.D.

Best-Odds Diet for Fending off Cancer

AICR offers these tips for avoiding cancer recurrence

- ▶ Choose a diet rich in a variety of plant-based foods.
- ▶ Maintain a healthy weight by eating appropriate portion sizes and being physically active.
- ▶ Drink alcohol only in moderation, if at all.
- ▶ Select foods low in fat and salt.
- ▶ Prepare and store foods safely.
- ▶ Do not use tobacco in any form.

Help with Dinner, the Healthy Way

Meal Helpers Nutrition Comparison

As with all *EN* comparisons, this is only a sampling of what's available. Products are listed alphabetically.

✓ = **EN's Picks.** Picks contain no more than 16 g fat (25% DV), 5 g sat fat (25% DV), and 640 mg sodium (27% DV), and at least 19 g protein (38% DV).

	Serv Size	Cal	Fat (g)	Sat Fat (g)	Sodium (mg)	Pro (g)	Fiber (g)	Carb (g)
BOXED								
Annie's Homegrown Organic Beef Stroganoff	46 g/1 c	360	18.5	8.5	760	18	1	32
Annie's Homegrown Organic Cheddar & Herb Chicken	41 g/1 c	450	21.5	7	880	20	2	45
Annie's Homegrown Organic Cheeseburger Macaroni	37 g/1 c	400	22.5	9	600	23	1	26
Annie's Homegrown Organic Cheesy Lasagna	45 g/1 c	440	24	9	830	25	1	32
Annie's Homegrown Organic Tuna Spirals	57 g/1 c	320	8.5	5	930	22	2	39
✓ Betty Crocker Asian Chicken Helper Chicken Fried Rice	28 g/1 c	280	11	2	390	26	<1	21
Betty Crocker Chicken Helper Creamy Chicken & Noodles	28 g/1 c	280	9	2.5	750	25	<1	24
Betty Crocker Hamburger Helper Classic Beef Pasta	30 g/1 c	280	11	4.5	760	21	1	23
Betty Crocker Hamburger Helper Classic Cheeseburger Macaroni	32 g/1 c	310	12	5	910	22	<1	27
Betty Crocker Hamburger Helper Classic Stroganoff	31 g/1 c	320	13	6	860	23	<1	27
Betty Crocker Hamburger Helper Classic Three Cheese	34 g/1 c	320	13	5	750	23	1	29
Betty Crocker Hamburger Helper Italian Cheesy Italian Shells	34 g/1 c	310	13	5	820	22	1	28
Betty Crocker Hamburger Helper Italian Four Cheese Lasagna	30 g/1 c	300	12	5	800	21	<1	25
Betty Crocker Hamburger Helper Italian Tomato Basil Penne	41 g/1 c	300	11	4	710	20	1	31
Betty Crocker Mexican Crunchy Taco	41 g/1 c	340	15	5	890	20	1	32
Betty Crocker Tuna Helper Classic Creamy Broccoli	36 g/1 c	260	10	3	830	15	1	29
Betty Crocker Tuna Helper Classic Creamy Parmesan	36 g/1 c	270	10	3	810	15	1	30
✓ Good Earth Restaurant Favorites Herb Crusted Chicken with Mushroom Risotto	42 g	300	12	2	540	23	1	25
✓ Good Earth Restaurant Favorites Tuscan Chicken	45 g	300	11	2	620	24	3	26
Romano's Macaroni Grill Restaurant Favorites Chicken Alfredo with Linguine	44 g/1 c	310	11	5	710	26	<1	27
✓ Romano's Macaroni Grill Restaurant Favorites Creamy Basil Parmesan Chicken & Pasta	44 g/1 c	300	11	4.5	590	26	1	26
✓ Wanchai Ferry Restaurant Favorites Kung Pao Chicken	65 g/1 c	320	9	1.5	640	23	1	36
✓ Wanchai Ferry Restaurant Favorites Sweet & Sour Chicken	88 g/1 c	300	7	1.5	310	19	<1	40
FROZEN								
Bertolli Chicken Florentine & Farfalle	340 g	570	31	17	1070	25	4	40
Bertolli Chicken Parmigiana & Penne	340 g	480	21	6	1460	23	4	49
Bertolli Mediterranean Style Chicken, Rigatoni, & Broccoli	340 g	380	15	4	970	22	4	37
Bertolli Shrimp, Asparagus, & Penne	340 g	420	16	8	1000	18	3	50
Bertolli Tuscan-Style Braised Beef with Gold Potatoes	340 g	310	11	2.5	920	16	3	35
Birds Eye Voila! Alfredo Chicken	205 g/1 c	280	12	7	600	14	2	27
Birds Eye Voila! Cheesy Chicken	227 g/1 c	250	6	3	830	14	3	35
Contessa General Tsao Shrimp with Sauce	248 g	280	1.5	0	750	11	3	55
Contessa Microsteam Shrimp Scampi & Linguini	227 g/1 c	360	14	8	520	14	4	43
Contessa Sesame Chicken with Sauce	269 g	280	5	1	750	15	4	45
Romano's Macaroni Grill Basil Parmesan Chicken	340 g/1 ½ c	460	21	12	1060	30	4	44
Romano's Macaroni Grill Spicy Italian Sausage Pomodoro	340 g/1 ½ c	460	21	7	820	20	6	48
Stouffers Sautés for Two Braised Beef and Portobello Tortelloni	340 g/½ bag	370	15	8	880	22	3	36
Stouffers Sautés for Two Cajun Style Shrimp Alfredo	340 g/½ bag	400	16	10	940	17	4	46
Stouffers Sautés for Two Grilled Chicken and Asiago Tortelloni	326 g/½ bag	570	30	14	1000	31	4	44
Stouffers Sautés for Two Steak Gorgonzola	340 g/½ bag	730	26	14	950	34	5	90
Tai Pei Stir Fry Creations Chicken Fried Rice	340 g	420	8	1.5	1560	22	2	66
Tai Pei Stir Fry Creations Crispy General Tso's Chicken	340 g	440	9	1.5	710	16	3	74

Note: g=gram, mg=milligram, sat fat=saturated fat, carb=carbohydrates, oz=ounces; Source: product labels.

There are some people who cook every meal from scratch, and there are others who eat every meal in a restaurant. But most fall somewhere in between these two extremes. And, for that majority, there are nights when neither extreme is an option. Those are the nights when a little extra help from the store is needed. You want to cook your meal, but need all the prep—cutting, seasoning, and sauce-making—to be done for you. That's when those handy-dandy "helper" boxes or frozen skillet meals in your grocery store come to the rescue. It used to be that you were limited to a frozen bag of chicken and noodles or a box mix, to which you just added ground beef, but today your choices include options for chicken, tuna, shrimp, steak, and even vegetarian. Many of these meals tend to be high in sodium and/or fat, and too low in veggie content to be considered a healthy dinner on a regular basis, but a few can occasionally fit into a healthy eating plan.

Helpful hints. Next time you find yourself hitting the grocery store a half an hour before you need to get dinner on the table, keep these tips in mind to make your "I need help" dinner as healthy as possible.

- **Add some color.** Many of these meals fall short on the fruit and veggie offerings. While dinner simmers away, chop some veggies for a simple salad, get some fruit washed and ready to eat, and steam some frozen (or heat up some canned) veggies to go along side. Just watch the amount of sodium if you're using canned vegetables.

- **Check the serving size.** For some people, it may seem these speedy meals are made for one, but in reality, most contain anywhere from two to five servings. So, if you're getting fewer servings than the package says, keep in mind that you're getting more calories, fat, sodium, and everything else, too.

- **Do it yourself.** Sure, these meals are super convenient, but it doesn't take much longer to make your own healthier version from scratch. Using brown rice or whole grain pasta as a base (make ahead in big batches, then just rinse with hot water and drain to freshen before warming up), stir in your favorite steamed veggies, and cooked lean ground beef, shrimp, or diced skinless chicken, along with your favorite seasonings. [EN](#)

— Heidi McIndoo, M.S., R.D.

Diet Spells R-E-L-I-E-F from IBS

(continued from page 1)

and discomfort or pain that occurs along with a change in texture of stool.

Treating IBS. Managing this condition can be just as problematic as diagnosing it. Historically, health experts have lacked consensus on how to treat IBS, leaving many patients to resort to urban legends and unsubstantiated treatments for relief such as hypnosis, or herbal therapies like grapefruit seed extract. However, in January 2009 the American College of Gastroenterology published guidelines based on current science for the management of IBS in *The American Journal of Gastroenterology*. The guidelines suggest that fiber products, probiotics, and medications such as non-absorbable antibiotics that target the gut, antidepressants, lubiprostone (Amitiza), and anti-emetics that counteract vomiting are beneficial for some IBS patients.

Eating to soothe symptoms. While there are still no general, evidence-based dietary guidelines for IBS, 60 percent of those who suffer from the disorder believe that food contributes to their symptoms, according to Kate Scarlata, R.D., author of “The Complete Idiot’s Guide to Eating Well with IBS” (Penguin Group, 2010.) Scarlata not only suffers from IBS, but also specializes in treating it in her nutrition practice. The first step is to realize that individuality is key—people respond differently to different foods and have wide-ranging symptoms, from constipation to gas to diarrhea.

Food triggers. Some foods are common triggers of IBS symptoms, reports Scarlata, and can influence your symptoms, depending on *what* you eat, *how much* you eat, and under *what conditions* (such as stress). In fact, most experts recommend that you keep a journal describing foods eaten, time they are eaten, specific amounts, feelings during meals, and symptoms after eating. Scarlata lists the following foods as possible triggers if you suffer from IBS:

- **Lactose.** This sugar found in milk and dairy products can produce symptoms within 30 minutes for some people with IBS, but many people have a threshold for the amount of lactose they can tolerate.
- **Fructose.** Found primarily in fruits, fruit juices, honey and high fructose

corn syrup, this sugar can mimic lactose intolerance and pose problems for some people.

- **FODMAPs.** An acronym for fermentable oligosaccharides, disaccharides, monosaccharides, and polyols, FODMAPs are a group of carbohydrates that are commonly malabsorbed in the intestines, sometimes causing bloating and diarrhea. FODMAPs include lactose and fructose, as well as fructans—a group of carbs found in foods like wheat, beer, garlic, onions, inulin, artichokes, and asparagus; polyols (sugar alcohols) found in sugar-free products in the form of isomalt, mannitol, lactitol, maltitol, sorbitol and xylitol, and in certain fruits such as apples, pears, peaches, cherries, and prunes; and galactans found in cabbage, beans, lentils, and soy.
- **Fiber.** All fiber is not created equal; while insoluble fiber found in wheat and bran can aggravate symptoms, soluble fiber found in oats and fruit has been found to help manage IBS symptoms by slowing down digestion.
- **Fat.** Large amounts of fat can trigger the gastrocolic reflex, which increases muscle movement in the gastrointestinal tract, and can prompt symptoms.
- **Alcohol.** Alcohol can interfere with absorption and prompt extra water to be released into the intestinal tract, setting off symptoms in some people.
- **Caffeine.** Since caffeine is a stimulant that speeds the movement of the intestinal tract, you might need to learn your limits.
- **Food allergies and beyond.** Specific food allergies or sensitivities, such as histamine and salicylates, also can contribute to gastrointestinal symptoms.

Individual symptoms. Just because you have IBS, doesn’t mean that all of these potentially troublesome foods are triggers for you. It’s important to determine which foods produce symptoms and in what amounts—sometimes you can tolerate a particular food such as milk in small doses, but larger amounts may cause problems. Remember, many of these

EN’s Expert Tips on Managing IBS with Diet

Our IBS diet expert Kate Scarlata, R.D. offers the following advice on finding relief from IBS through diet.

- 1. Properly digest your foods.** Eat slowly, chew your food very well, and eat while relaxed in order to better aid digestion.
- 2. Maintain regularity.** Promote bowel regularity by hydrating sufficiently with water, allowing adequate time to go to the bathroom, and exercising.
- 3. Don’t gorge—or graze.** Large meals, with too much food to handle all at once, can lead to bloating and diarrhea. Yet grazing can cause problems, too. People with IBS often have a problem keeping their gut “clean,” because their migrating motor complex (MMC, a “cleaning wave” in the gut) produces fewer waves than those in normal individuals. If you’re snacking every two hours, the MMC doesn’t get a chance to clean out your intestines, possibly resulting in small intestinal bacterial overgrowth, a condition linked with IBS. So, eat a balanced meal and then wait at least three hours before eating again.
- 4. Try the FODMAPs approach.** Limit your food sources of FODMAPs and assess the benefit. If you don’t find significant improvement, consider other food sensitivities. (For more information on FODMAPs, visit <http://katescarlata.wordpress.com/>)
- 5. Consider probiotics.** You might find probiotics, such as Align (which contains bifidobacteria) helpful. By adding healthy bacteria to your diet, you can help restore intestinal bacterial balance. Some studies have found that bifidobacteria promotes a decrease in diarrhea, pain, and bloating in IBS.
- 6. Consider enteric-coated peppermint oil if cramping and pain are symptoms.** One study that examined 57 people with IBS found a 75 percent reduction in symptoms among those who took the capsules twice a day for four weeks.
- 7. Focus on whole foods rather than processed foods.** Since many people with IBS have microscopic inflammation, choose anti-inflammatory foods such as whole, plant-based foods over highly processed foods like snack foods, fried foods, and highly-sweetened foods.

possible food triggers are rich sources of important nutrients, such as vitamins, minerals, and phytochemicals, and avoiding foods unnecessarily should never be your goal. That’s why you might benefit from consulting a registered dietitian trained in digestive disorders (check <http://www.eatright.org> to find a dietitian in your area) to help create a specific diet plan for you that helps minimize symptoms without sacrificing nutrition. [EN](#)

—Sharon Palmer, R.D.

Organics, from Country to Country

Q Are organic foods different if they come from other countries?

A Walk down any supermarket aisle and it's clear that organics are gaining shelf space by leaps and bounds. In fact, there's now an organic option for almost any conventional item. No longer a newcomer to the market, organic food has gone from grass roots to big business. Demand is so high that many U.S. companies are turning to organic food produced in other countries.

Eager to meet that need, organic agriculture is developing rapidly. The 2009 global survey on certified organic farming by the Research Institute of Organic Agriculture (FiBL), which includes statistics from 160 countries, shows 37.2 million hectares of agricultural land are managed organically by 1.8 million producers. Global market sales of organic food and drinks were valued at almost \$55 billion in 2009 (the most recent year for which statistics are available).

Organics beyond the border. However, not all countries have organic agricul-

ture regulation in place, and for those that do, regulations vary from country to country. In the U.S., EU, Canada and Japan, organic standards are formulated and overseen by the government, which means legislation is in place to ensure that only certified producers use the term "organic." When countries have no organic laws or government guidelines, certification is handled by non-profit organizations and private companies.

For organics from other countries to be sold as organic here, they must be produced and processed according to our regulations and certified by a U.S. Department of Agriculture (USDA) accredited certification agency. The USDA's National Organic Program (NOP) is in charge of organic certification, accrediting certification agencies, and overseeing the enforcement of regulations, which includes requiring organic products to originate from certified organic farms or handling operations.

Enforcing organic regs. As of 2010, there were 94 U.S. certification agencies around the world (53 domestic and

41 foreign) in charge of almost 30,000 certified organic operations. There are also recognition agreements that allow the governments of Egypt, Israel, Denmark, Argentina, Italy, Bolivia, Ghana and Germany to certify organic products according to NOP standards. And in an effort to harmonize certification with our northern neighbor, the U.S. and Canada have shared an equivalency agreement since 2009 that allows farmers in each country to sell, label and represent their certified organic products in the other country without having to be certified by the other country's standards. Essentially, this makes the countries' standards interchangeable.

With so many organic operations, NOP enforcement has been criticized in years past when there have been many cases of noncompliance. In one of many steps to strengthen and protect the integrity of the organic label, the Obama administration boosted its budget last year.

To protect yourself when it comes to organics, you have a few options: You can grow your own food, buy fresh, local and seasonal organic produce, join a cooperative, and read labels carefully. **EN**

Wasabi's Potent Flavor and Nutrition

Q Where does wasabi come from and is it good for you?

A With nutrient potential as powerful as its flavor, wasabi is another food entering the nutrition spotlight. Wasabi is a member of the *Cruciferaeae* or *Brassicaceae* family, which also includes mustard, horseradish, broccoli, Brussels sprouts, cauliflower and cabbage. While it grows wild along the beds of the river valleys of Japan, wasabi is also cultivated in the Pacific Northwest of the U.S. and Canada. After its second year of growth, the wasabi plant is hand-harvested in the spring or fall for its large root. The root is usually ground or grated into a fresh paste and most commonly paired with Japanese cuisine, such as sushi or sashimi (raw fish.) The leaves, sharing the same spicy flavor as the root, can also be cooked or used as a garnish.

Precious wasabi commodity. Wasabi is widely available in supermarkets or restaurants in a paste or powder form.

However, many wasabi products are nothing more than colored, horseradish-based substitutes, often containing very little or no real wasabi. This is because genuine wasabi is expensive and generally rare outside of Japan; it can cost as much as \$100 per pound in the U.S. But, the explosive flavor of wasabi means a little bit goes a long way. If you're looking for the real thing, you might find genuine wasabi root or paste at specialty grocers, over the Internet, and at high-end restaurants.

Nutrient kick. Wasabi also packs a nutrient punch. In a single ounce of raw wasabi root, you'll find 2 grams (g) fiber, 1 g protein, and 11.7 milligrams vitamin C (20% of the Daily Value), as well as supplies of vitamin B6, potassium, manganese and magnesium. Japanese scientists analyzed wasabi and reported in the journal *Biofactors* that compounds found in the root, called isothiocyanates, appear to inhibit food bacteria, as well as possess antioxidant and anti-cancer

activity. Isothiocyanates—also found in broccoli, Brussels sprouts, cabbage, horseradish, mustard, and radish—may help prevent cancer by promoting the elimination of potential carcinogens from the body and by enhancing tumor suppression. Studies have found that these plant compounds may inhibit development of cancers of the lung, liver, esophagus, stomach, small intestine, colon, and breast in animals. Additional research needs to occur before scientists fully understand how isothiocyanates can reduce cancer risk in humans. In the meantime, there are plenty of reasons to let the pungency of wasabi flavor your dishes—try spicing up your next stir-fry, guacamole, or salad dressing by adding a pinch. **EN**

Write to us if you have a question. We'll answer those of most interest to our readers. We regret, however, that we cannot personally respond. Send to:

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Brighten the Season with Winter Squash

The folklore. Squash is one of the oldest cultivated crops in the western hemisphere, dating back to 8,000 B.C. Mexico. An important staple of nearly every Native American tribe, squash was part of the Iroquois' "three sisters" of plantings, along with maize and beans. Squash seeds were buried with the dead to nourish their journey in the afterlife, and also were believed to increase fertility. The earliest squash had sparse flesh and was bitter and unpalatable, and cultivated only for its seeds. As cultivation spread, better tasting varieties developed.

The facts. Winter squash are part of the *Cucurbitaceae* family, also known as the gourd family, along with melons, cucumbers and luffas (or loofah,) the spa sponge. Characterized by hard shells, hollow inner, seed-filled cavities, and sweet flesh, the many varieties include acorn, banana, turban, butternut, Hubbard, spaghetti, and Kabocha. Winter squash are harvested at a more mature age than their summer cousins. The hard shell lends longer storage capacity, and the vibrant yellow and orange flesh is richer in vitamins. Winter squash are an important source of carotenoids, a group of antioxidants that includes alpha and beta carotenes; just one cup provides more than double the daily requirement of vitamin A, important for eye health.

The findings. Carotenoids have received much attention for their anticancer potential. Beta carotene was found to inhibit the spreading and growth of leukemia cells, according to a study published in the May 18, 2011 *Archives of Biochemistry and Biophysics*. Higher levels of alpha carotene in the blood were linked with lower risk of death from all causes, including cardiovascular disease and cancer, according to an article in the March 28, 2011 issue of *Archives of Internal Medicine*. The study supports increased consumption of fruits and vegetables as a means of preventing premature death.

The finer points. Slice into winter squash and the deeply colored flesh will brighten the gray of winter. Though available from August to March, they are at their best in October and November. The most flavorful squash will have a firm, smooth rind that allows most varieties to be stored for one week up to six months,

if kept out of direct light and extreme temperatures. Once cut, store squash covered, in the refrigerator, for one to two days. Cooked winter squash, whether steamed or baked, needs little more than a dash of seasoning to enhance flavor. Try it pureed in soups, stuffed with sweet and savory ingredients, or roast the seeds for a crunchy treat. **EN**

—Lori Zanteson

Notable Nutrients

Winter Squash, 1 cup, baked, cubes

Calories: 76

Dietary Fiber: 5.7 g (23% DV)

Vitamin A: 10,708 IU (214% DV)

Vitamin B6: .3 mg (17% DV)

Vitamin C: 19.7 mg (33% DV)

Potassium: 494 mg (14% DV)

Manganese: .4 mg (19% DV)

Beta Carotene: 5,725 mcg

(DV= Daily Value, g=grams, IU=international units, mg=milligrams, mcg=micrograms)

WINTER SQUASH AND KALE RISOTTO WITH PINE NUTS

- 2 tsp olive oil
- 1 c yellow onion, diced
- 3 cloves garlic, minced
- 1 c Arborio or short-grained rice
- 2 Tbsp pine nuts
- 2 (10 oz) cans low-sodium, fat-free vegetable broth
- 1 (12 oz) pkg frozen winter squash, thawed, diced
- 2 c fresh kale, finely chopped

1. Heat oil in a large saucepan over medium heat. Add salt, onion and garlic, and sauté 2 minutes. Stir in rice and pine nuts and sauté for about 2 minutes.
2. Add first can of broth, ½ cup at a time, cooking and stirring over medium-low heat until liquid is nearly absorbed.
3. Add diced squash and second can of broth, ½ cup at a time, stirring often. Add the kale and cook until all broth is absorbed and kale is soft. Makes 4 serving.

Nutritional Information per Serving: 336 calories, 6 grams (g) fat, 62 g carbohydrates, 8 g protein, 6 g fiber, 195 milligrams sodium.

Adapted from FruitsandVeggiesMatter.gov

- **TV watchers at greater risk for disease and mortality.** A meta-analysis of eight published studies, that included 200,000 people, on TV viewing and its associated risk of type 2 diabetes, fatal or nonfatal cardiovascular disease, and all-cause mortality showed that for every two hours of television people watched daily, their risk of diabetes increased by 20 percent, heart disease risk rose by 15 percent, and risk of all-cause mortality increased by 13 percent. Participants were followed for an average of seven to 10 years.

The Journal of the American Medical Association, June 15, 2011

- **Nuts help glucose control in type 2 diabetes.** Toronto researchers studied 117 people with type 2 diabetes who received one of three treatments for three months: mixed nuts (75 grams/day), muffins, or half portions of each. The full-nut dose reduced HbA(1c), a marker of glucose control, and LDL ("bad") cholesterol significantly compared to the muffin or half-nut dose.

Diabetes Care, June 2011

- **Food habituation may help weight loss.** The effects of food habituation—a form of learning in which repeated exposure leads to decreased response—was investigated in a study of 16 obese and 16 nonobese women, who were randomly assigned to receive a macaroni and cheese meal five times, either daily for one week or once a week for five weeks. In both obese and nonobese women, daily presentation of the food resulted in faster habituation and less calorie intake than did once-weekly presentation of the food. This study supports the theory that the habitual presentation of a *small* variety—compared with a *wide* variety—of calorie-dense foods results in lower calorie intake.

American Journal of Clinical Nutrition, August 2011

In Coming Issues

- **Whole Food Solutions to Replace Sugar.** Turn to the natural sweetness of fruits to skim sugar from recipes.
- **Bulgur Up on Delicious Nutrition.** Discover new ways to make the most of this tasty whole grain.
- **What's Cooking for Breakfast?** *EN* dishes on our best picks for restaurant breakfasts.