Objectives

- Determine risk factors for heart disease
- Identify parts of a balanced, heart healthy diet
- Make goals to improve your health
Did you know...

- The heart does more physical work than any other muscle in the body.
- The average heart pumps 2,000 gallons of blood per day or about 70 gallons per hour.
- In a 70-year lifetime, an average human heart beats more than 2.5 billion times.
Heart Disease

- #1 cause of death in the U.S. for both men and women, and people of most racial and ethnic groups

- Heart attack = decreased blood flow to the heart

- Stroke = decreased blood flow to the brain
Risk Factors

Approximately **80%** or more of all heart disease is preventable!

**Non-Modifiable Risk Factors**
- Age
- Gender
- Race/Ethnicity
- Family history

**Modifiable Risk Factors**
- Smoking
- Alcohol intake
- Poor diet
- Weight
- Chronic disease (diabetes, high blood pressure, high cholesterol)
Hypertension

- Hypertension = High blood pressure
- What effects blood pressure?
  - High sodium diet
  - Stress/anxiety
  - Caffeine intake
  - Water intake
- High blood pressure can lead to stroke, heart attack, kidney failure, and congestive heart failure.

<table>
<thead>
<tr>
<th>Blood Pressure Category</th>
<th>Systolic mm Hg (upper #)</th>
<th>Diastolic mm Hg (lower #)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>less than 120</td>
<td>and less than 80</td>
</tr>
<tr>
<td>Prehypertension</td>
<td>120 – 139</td>
<td>or 80 – 89</td>
</tr>
<tr>
<td>High Blood Pressure (Hypertension) Stage 1</td>
<td>140 – 159</td>
<td>or 90 – 99</td>
</tr>
<tr>
<td>High Blood Pressure (Hypertension) Stage 2</td>
<td>160 or higher</td>
<td>or 100 or higher</td>
</tr>
<tr>
<td>Hypertensive Crisis (Emergency care needed)</td>
<td>Higher than 180</td>
<td>or Higher than 110</td>
</tr>
</tbody>
</table>
# High Cholesterol

- **Cholesterol can be affected by:**
  - Genetics
  - **Diet:**
    - Saturated fat intake
    - Trans fat intake
    - Carbohydrate intake

- **High cholesterol can lead to blockages causing heart attacks and strokes**

<table>
<thead>
<tr>
<th>HDL</th>
<th>LDL</th>
<th>Triglycerides</th>
<th>Total Cholesterol</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Good” cholesterol</td>
<td>“Bad” cholesterol</td>
<td>Impacted by carbohydrate intake &gt; fat storage in the body</td>
<td>Total of all cholesterol in your body</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>60 or higher = ideal</th>
<th>&lt; 100 = optimal</th>
<th>&lt; 149 = optimal</th>
<th>&lt; 200 = desirable</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-59mg/dL = ok</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 40mg/dL = major risk factor for heart disease</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Nutrition Facts Label

**Saturated Fat**
- < 2 grams/serving = low saturated fat

**Trans Fat**
- Always want this to be 0 grams

**Sodium**
- No more than 2300 mg sodium/day
- <140 mg sodium per serving = low sodium food

**Added Sugars**
- Women should consume < 25 grams/day
- Men should consume < 37 grams/day

<table>
<thead>
<tr>
<th>Amount per 2/3 cup</th>
<th>Calories 230</th>
</tr>
</thead>
<tbody>
<tr>
<td>% DV*</td>
<td></td>
</tr>
<tr>
<td>12%</td>
<td>Total Fat 8g</td>
</tr>
<tr>
<td>5%</td>
<td>Saturated Fat 1g</td>
</tr>
<tr>
<td>5%</td>
<td>Trans Fat 0g</td>
</tr>
<tr>
<td>0%</td>
<td>Cholesterol 0mg</td>
</tr>
<tr>
<td>7%</td>
<td>Sodium 160mg</td>
</tr>
<tr>
<td>12%</td>
<td>Total Carbs 37g</td>
</tr>
<tr>
<td>14%</td>
<td>Dietary Fiber 4g</td>
</tr>
<tr>
<td></td>
<td>Sugars 1g</td>
</tr>
<tr>
<td></td>
<td>Added Sugars 0g</td>
</tr>
<tr>
<td></td>
<td>Protein 3g</td>
</tr>
</tbody>
</table>

| 10%   | Vitamin D 2mcg  |
| 20%   | Calcium 260mg   |
| 45%   | Iron 8mg        |
| 55%   | Potassium 235mg  |

* Footnote on Daily Values (DV) and calories reference to be inserted here.
Saturated Fat & Trans Fat

**Saturated Fat**
- Found in animal foods
- Solid fat at room temperature
- Examples: butter, coconut oil, palm oil, lard, 80/20 ground beef, skin on chicken breast, bacon, sausage, whole milk, full fat cheeses

**Trans Fat**
- A chemistry change occurs to create trans fats
- Very detrimental to heart health
- Examples: hydrogenated oils > typically found in baked goods and items with a long shelf life or fried foods
Sodium

- Used in foods for preservation, flavoring, leavening agent
- A diet high in sodium can lead to increased or high blood pressure (hypertension)
- The American Heart Association recommends people consume between 1500-2000 mg total sodium/day
  - Average American consumes ~3400-4000 mg sodium/day
  - 1 tsp of salt (sodium chloride) = 2300 mg sodium
Added Sugars

- Sugar that has been added to food for sweetness
- Can lead to elevated triglycerides
- Read food labels and ingredient labels to identify sources of added sugars
  - Sugar, glucose, high fructose corn syrup, honey, agave nectar, fructose, corn syrup, brown sugar, maltose, dextrose, rice syrup, etc...
- Examples: Yogurts, desserts, sweets, sugar-sweetened beverages (regular sodas, fruit juices, chocolate milk, coffee drinks, tea), crackers, cereals, dried fruits, condiments
What About Cholesterol?

- Some is necessary as it is used in the body to make different substances, part of cell membranes
  - Vitamin D
  - Hormones
  - Bile (needed to digest fats)
- Previously recommended by the DGA to consume <300 mg per day
- New research indicates that dietary cholesterol is not directly associated with CVD risk
- Dietary cholesterol usually coexists with saturated fat
- Instead of eliminating only high cholesterol foods, focus on cutting back on sources of saturated and trans fats
7 Steps to Improve Your Heart Health

1. Read food labels
2. Eat more fruits and vegetables
3. Eat lean proteins
4. Eat high fiber foods
5. Drink enough water
6. Exercise
7. Decrease alcohol intake and stop smoking
HEALTHY EATING PLATE

Use healthy oils (like olive and canola oil) for cooking, on salad, and at the table. Limit butter. Avoid trans fat.

The more veggies – and the greater the variety – the better. Potatoes and French fries don’t count.

Eat plenty of fruits of all colors.

WATER
Drink water, tea, or coffee (with little or no sugar). Limit milk/dairy (1-2 servings/day) and juice (1 small glass/day). Avoid sugary drinks.

EAT A VARIETY OF WHOLE GRAINS (like whole-wheat bread, whole-grain pasta, and brown rice). Limit refined grains (like white rice and white bread).

Choose fish, poultry, beans, and nuts; limit red meat and cheese; avoid bacon, cold cuts, and other processed meats.

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The Nutrition Source
www.hsph.harvard.edu/nutritionsource

Harvard Medical School
Harvard Health Publications
www.health.harvard.edu
Fiber

- Found only in plant foods: whole grains, fruits, vegetables, beans & legumes
- Helps to lower bad (LDL) cholesterol, improve GI health, promote normal bowel movements, lower blood sugars and keep you feeling fuller longer
- 2 types of fiber:
  - Soluble - gel forming fiber
  - Insoluble - bulk/roughage, indigestible fiber
- Current recommendation is to consume between 25-35 grams/day
- As you increase your fiber intake, increase water intake as well
Unsaturated Fat

- These are the “good” fats
- They help to reduce bad cholesterol levels (LDL) in the body and increase the good cholesterol levels (HDL)

Polyunsaturated fats:
- Omega-3 fatty acids, e.g. fatty fish, flaxseeds, walnuts
- Omega-6 fatty acids, e.g. sunflower seeds, sunflower oil, soybean oil

Monounsaturated fats: Olive oil, canola oil, peanut oil, avocado, nuts and nut butters, olives
Omega-3 Fats

- These are the “best” fats
- They help to reduce inflammation, blood clotting and blood pressure
- Found in both plant and animal foods
- Three main types of omega-3 fatty acids: EPA, DHA, ALA
- Examples: fatty fish (salmon, albacore tuna, sardines), walnuts, flaxseeds
Physical Activity

- Aim to get 150 minutes of moderate intensity physical activity per week (30 minutes, 5 days per week)
  - Walking, jogging, biking, playing tennis
- Start small; it all counts!
- Space it out throughout the day
- Add walking or standing breaks to limit time sitting
- Limit “screen time” to ≤ 2 hours
Smoking Cessation

- Smoking puts you at a higher risk for heart disease and stroke
- Talk to your doctor about smoking cessation programs
- Northside Smoking Cessation Program
  - Phone: 404-780-7653
  - Email: smokingcessation@northside.com

Resources to help you stop smoking and using tobacco
Cardio-Oncology

- Free Virtual Workshop – Cardio-Oncology
- Friday, February 18th @ 12pm
- Featuring Dr. Lalitha Medepalli
- Register at www.cscatlanta.org/calendar
Questions?
References/Resources

- American Heart Association ([www.heart.org](http://www.heart.org))
- Northside Hospital Smoking Cessation Program [https://www.northside.com/community-wellness/built-to-quit](https://www.northside.com/community-wellness/built-to-quit)