



# Objectives

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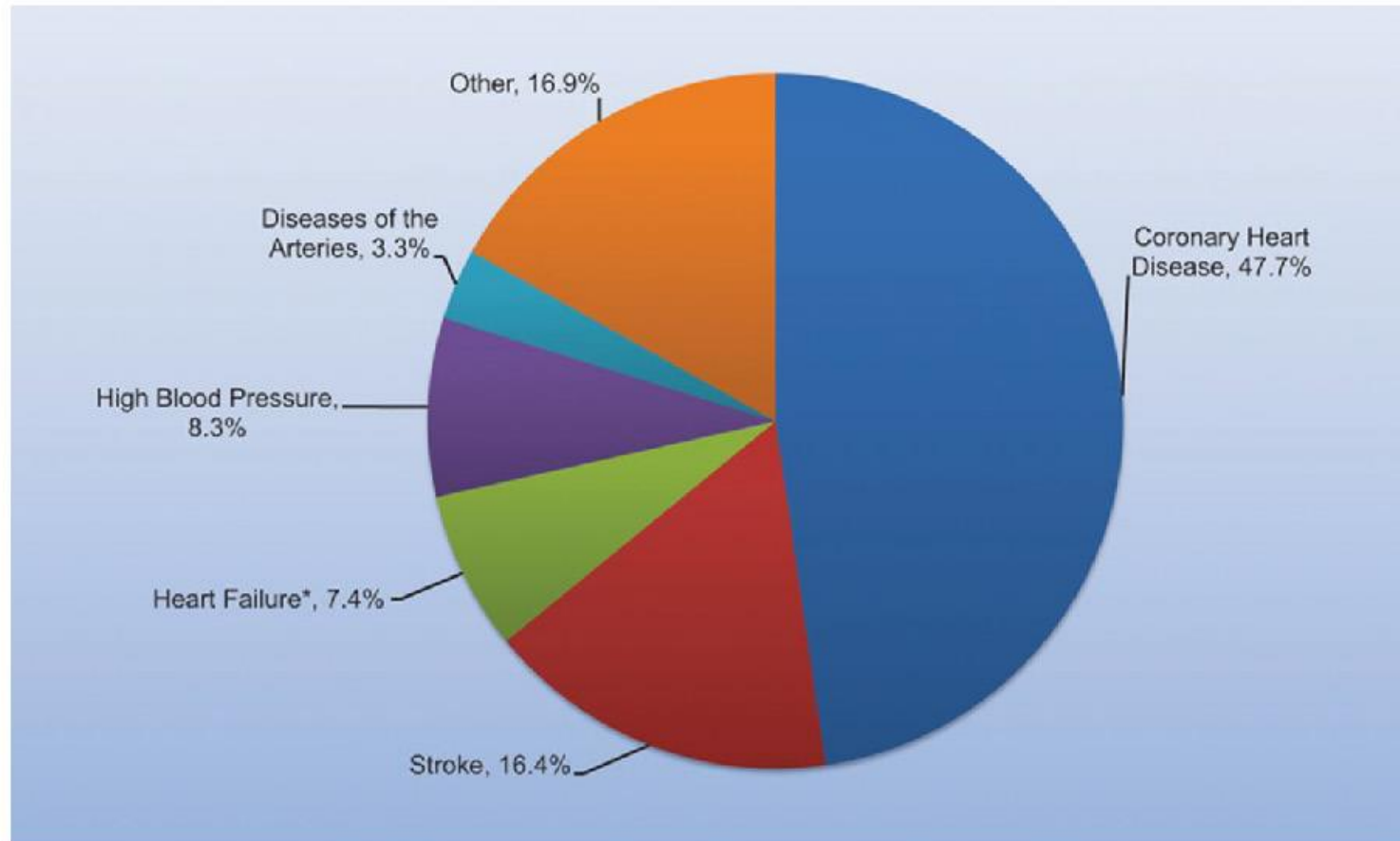
- Understand the various types of heart diseases
- Identify foods to include and to limit in a heart healthy diet
- Decipher between heart healthy and not heart healthy fats

# Cardiovascular Disease

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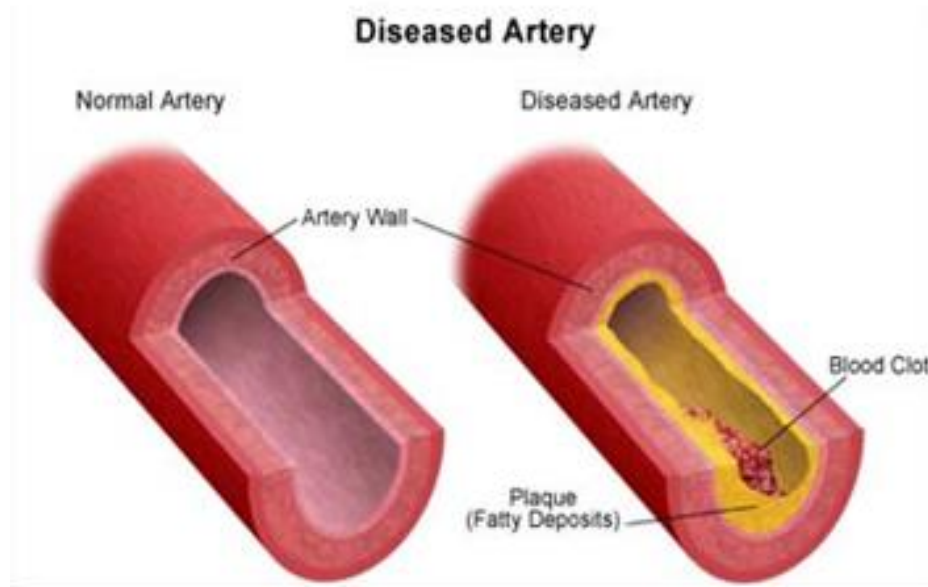
- Coronary Heart Disease
- Hypertension
- Stroke/TIA
- Peripheral Vascular Disease

Percentage breakdown of deaths attributable to cardiovascular disease (United States: 2011).



# What causes most Cardiovascular disease?

- Atherosclerosis – Hardening and Narrowing of the Arteries
- High Blood Pressure



# Atherosclerosis Complications

- CAD
  - ▣ Heart Attack
  - ▣ Angina
- Cerebrovascular disease
  - ▣ Stroke (ischemic)
  - ▣ TIA
- PVD
  - ▣ Hardening and narrowing of blood vessels in arms, legs, abdomen, kidney and carotid arteries in the neck

# Risk Factors of CVD

- Age (45 or older for men, 55 or older for women)
- Smoking
- Genetics
- High blood pressure and cholesterol
- Obesity
- Physical Inactivity
- Diabetes
- Alcohol

# Reduce your risk by...

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- Stop smoking
- Be physically active everyday
- Reduce blood cholesterol
- Lower high blood pressure
- Aim for a healthy weight
- Control blood glucose if diabetic



# Heart Healthy Diet

- More Fiber
- Vegetables and Fruits
- Unrefined Whole-Grain Foods
- Fish at least twice a week
- Lean meats and poultry
- Fat-free, 1% fat and low-fat dairy
- Be calorie conscious
- Less Saturated Fat
- Limit Cholesterol
- Avoid foods containing partially hydrogenated vegetable oils to reduce trans-fat in your diet
- Choose and prepare foods with little or no salt

# Fruits

- Recommended 2 cups/day
- Focus on whole fruits
- Variety of colors provide different micronutrients
- $\frac{1}{2}$  cup raisins=1 cup equivalent



# Vegetables

- Recommended servings: 2.5 cups/day
- A variety of vegetables from all of the subgroups—dark green, red and orange, legumes (beans and peas), starchy and other
- 1 cup of raw spinach = ½ cup equivalent



# Protein

- Recommended servings: 5.5 ounce-equivalents/day
- A variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), nuts, seeds, and soy products
- Focus on plant based proteins may lower risk of CVD, obesity, type 2 diabetes, and some types of cancers



# Grains

- Recommended serving: 6 ounce-equivalents/day
- At least  $\frac{1}{2}$  of servings from whole grains
- Limit refined grains with added sugar and saturated fats
- $\frac{1}{2}$  cup rice = 1 oz equivalent



# Dairy

- ❑ Recommended servings: 3 cup equivalents for ages >9
- ❑ Fat-free and low-fat (1%) dairy, including milk, yogurt, cheese, or fortified soy beverages (commonly known as “soymilk”)
- ❑ 1.5 oz cheese = 1 cup equivalent



[https://ncescatalog.com/Dairy-Foods-Model-Kit\\_p\\_649.html](https://ncescatalog.com/Dairy-Foods-Model-Kit_p_649.html)

# Oils

- ❑ Recommended serving: 5tsp/day
- ❑ Monounsaturated and polyunsaturated fats and are liquid at room temperature
- ❑ Canola, corn, olive, peanut, safflower, soybean, and sunflower oils
- ❑ NOT coconut oil, palm kernel oil, and palm oil





**Nutrients to limit...**



# Added sugar

- ❑ Recommendations: Not exceed 10% of kcals/day
- ❑ Added sugar contributes to calories and may make it difficult to reach nutrient requirements within caloric limits
- ❑ Includes: Brown sugar, corn sweetener, corn syrup, dextrose, fructose, glucose, high-fructose corn syrup, honey, invert sugar, lactose, malt syrup, maltose, molasses, raw sugar, sucrose, and turbinado sugar.



# Saturated fats

- Recommendations: <10% of kcals per day
- Saturated fats in the U.S. diet include mixed dishes containing cheese, meat, or both (burgers, tacos, pizza, meat, poultry, and seafood dishes)



# Trans Fats

- Recommendations: Limit as low as possible
- Found in: Desserts, microwave popcorn, frozen pizza, margarines, and coffee creamers.



<https://www.beliefnet.com/columnists/depressionhelp/2019/02/foods-cause-anxiety-depression.html>

# Cholesterol

- Found exclusively in animal products
- Because of the shared food sources with saturated fats, DGA 2015-2020 gives no set recommendation for cholesterol but should be limited similarly to saturated fats (<10% of kcals)



# Sodium

- Recommendations: <2300mg/day
- <1,500mg if Hypertensive
- Found in: Processed foods, snack foods, frozen foods, sauces/gravies, condiments, canned goods, soups, restaurant foods



Sample label for  
Macaroni & Cheese

# Nutrition Facts

1 **Start Here** →

Serving Size 1 cup (228g)  
Servings Per Container 2

2 **Check Calories**

**Amount Per Serving**  
**Calories** 250      **Calories from Fat** 110

3 **Limit these Nutrients**

	% Daily Value*
<b>Total Fat</b> 12g	18%
Saturated Fat 3g	15%
<i>Trans</i> Fat 3g	
<b>Cholesterol</b> 30mg	10%
<b>Sodium</b> 470mg	20%
<b>Total Carbohydrate</b> 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
<b>Protein</b> 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

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**Quick Guide to % DV**

• 5% or less is Low

• 20% or more is High

4 **Get Enough of these Nutrients**

5 **Footnote**

\* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

# Heart Healthy Cooking

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- Start from scratch (if possible)
- Bake, broil, grill
- Poach, steam
- Use non-stick spray
- Measure oil used in recipes

# Eating Out

- Choose restaurants that offer healthy selections
- Fast foods – Order small portions or child's meal or choose grilled instead of fried
- Be conscious of salad toppings
  - ▣ nuts and seeds vs. bacon bits and cheese
- Ask for the nutrition Information



# Physical Activity

- Aim for at least 150 minutes of moderate-intensity exercise per week (20-30minutes per day)
- 75 minutes of high-intensity exercise per week
- The more the better!

# Resources

- Office of Disease Prevention and Health Promotion (ODPHP)
  - <https://health.gov/dietaryguidelines/2015/guidelines/executive-summary>
- United States Department of Agriculture (USDA)
  - [ChooseMyPlate.org](http://ChooseMyPlate.org)
- Food and Drug Administration (FDA)
  - <https://www.fda.gov/food/food-additives-petitions/final-determination-regarding-partially-hydrogenated-oils-removing-trans-fat>