

# Nutrition and Chronic Disease for Body and Soul

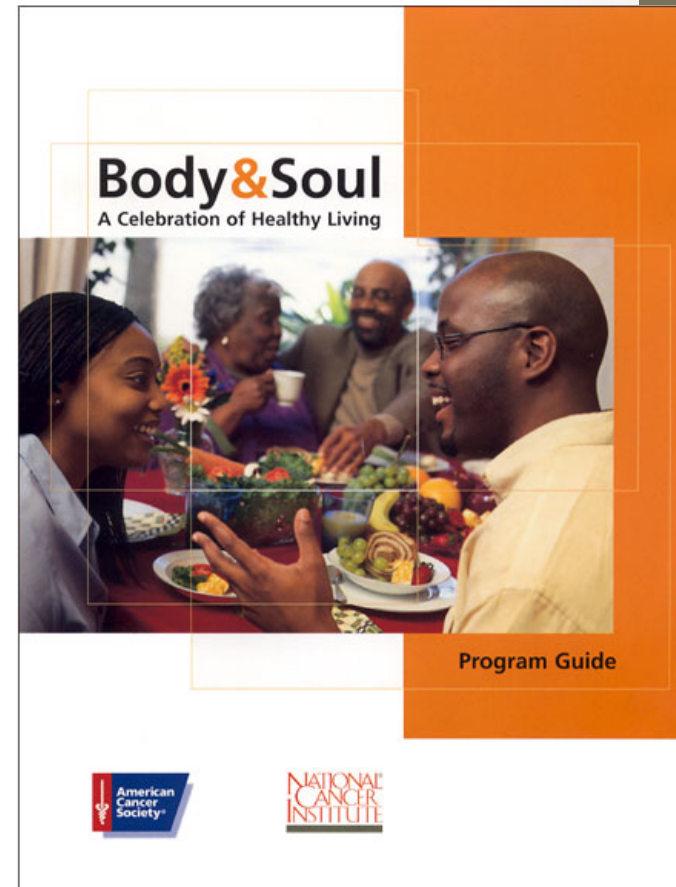
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July 26, 2012



# Agenda

- Review of fruits and vegetables
- Heart disease
- Diabetes
- Stroke
- Sodium reduction techniques
- Food safety



# Importance of Fruits & Veggies

- Contain vitamins, minerals, fiber, other nutrients
- Protect from chronic diseases like stroke, heart disease, cancers
- Low in calorie, high in nutrients
- **NUTRIENT DENSE versus CALORIE DENSE**
- How Much?
  - About 2.5 cups per day or 5 servings per day
  - “More Matters”
  - Variety



# Chronic Diseases

- Chronic diseases are long-lasting
  - Non-communicable include diabetes and heart disease, cancer
- In the United States, about 1 in 2 people (133 million) has at last 1 chronic medical condition
  - High blood pressure, arthritis, lung diseases, high cholesterol
- More than 75% of the \$2 trillion the U.S. spends annually on medical costs is due to chronic disease



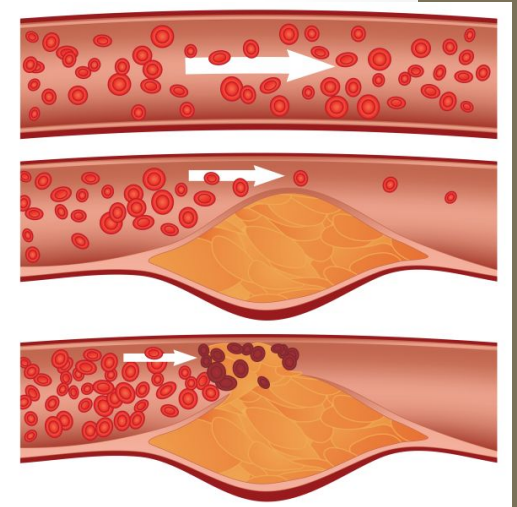
# Nutrition and Chronic Disease

- Obesity and overweight is a risk factor for many
  - Diabetes, stroke, cancer, heart disease
- Importance of nutrition, physical activity and a healthy weight
- Prevention and treatment
- Recommendations for one disease often mimic that of other diseases



# Nutrition and Heart Disease

- Heart disease is the #1 cause of death in Americans
  - Also called coronary heart disease and cardiovascular disease
- Describes several problems related to plaque buildup in the walls of arteries (atherosclerosis)
  - Begins in childhood, and stays with us for life
  - Preventive measures like good nutrition, weight management and plenty of activity can help
- Risk factors:
  - High LDL (bad) cholesterol, low HDL (good) cholesterol, high blood pressure, family history, diabetes, smoking, men over 45, post-menopausal women, obesity



# Nutrition and Heart Disease

American Heart Association encourages “Life’s Simple 7” to promote heart health:

1. Don’t smoke
2. Maintain a healthy weight
3. Engage in regular physical activity
4. Eat a healthy diet
5. Manage blood pressure
6. Take charge of cholesterol
7. Keep blood sugar (glucose) at healthy levels

- Heart-healthy diet improves changes for staying healthy
- More than 90% of us fail to eat a heart-healthy diet
- Poor eating habits increases risk for heart disease, stroke, diabetes and obesity



# Eat Better for Heart Health

- Fruits and Vegetables at least 4.5 cups per day
  - High in vitamins, minerals and fiber, low in calories
  - Help control weight and blood pressure
- Fish (preferably oily) at least 2 3.5-oz servings a week
  - Omega-3 fatty acids (salmon, trout, herring) have help lower risk of death from coronary artery disease
- Fiber-rich whole grains at last 3 1-oz servings per week
  - Help weight loss (feel more full) and can help lower cholesterol





# Eat Better for Heart Health

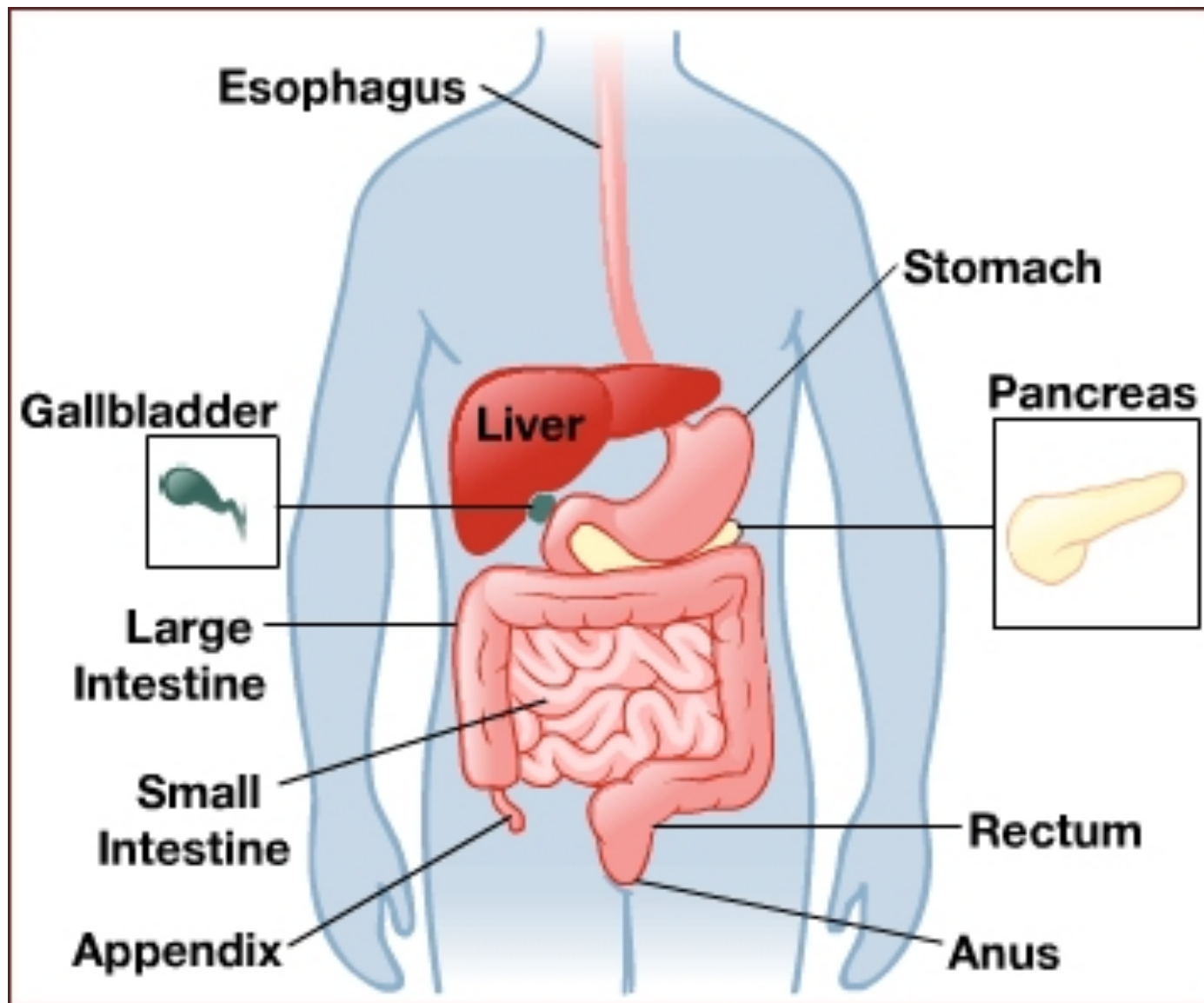
- Sodium less than 1500mg per day
- Sugar-sweetened beverages no more than 450 calories (36 oz) a week
- Nuts, legumes, seeds at least 4 servings a week
  - Source of fiber and healthy fats
- Processed meats no more than 2 servings a week
- Saturated fat less than 7% of total energy intake

Remember portion sizes!



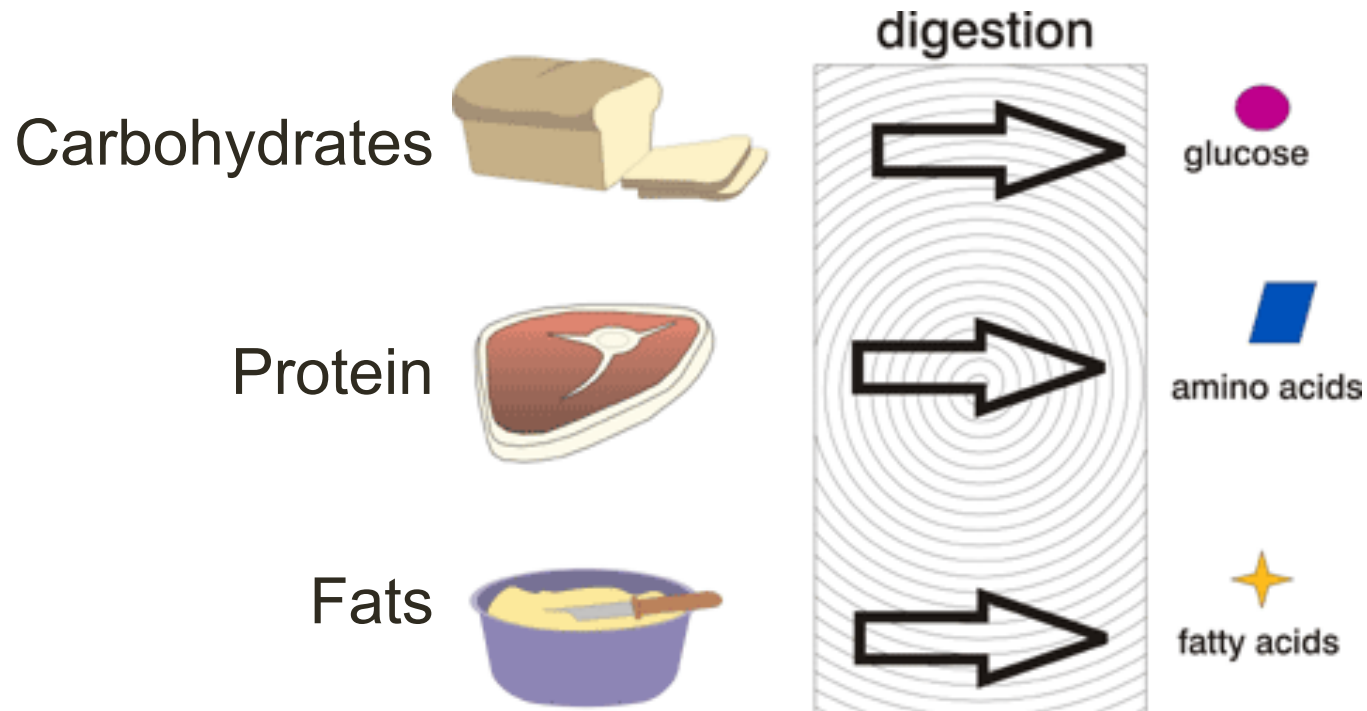
# Diabetes

- Affects more than 20 million Americans
- A disease in which the body has a shortage of insulin, decreased ability to use insulin, or both
  - Insulin allows sugar (glucose) to enter cells, where it is turned into energy
  - Everyone needs some glucose, it's the brain's main source of energy
- Different types of diabetes
  - All types mean you have too much glucose in your blood
  - Type 1-need insulin to survive, typically younger
  - Type 2-most cases of diabetes
  - Gestational- occurs during pregnancy
  - Prediabetes– over 40 million Americans



# Nutrition and Diabetes

- There are 3 main components in our food (macronutrients)



# Nutrition and Diabetes

- Carbohydrates raise blood sugar
- Protein, fat and fiber can affect how fast your blood sugar increases
- Important:
  - To have a **balance** of carbohydrates, protein, and fat to manage blood sugars
  - To choose **healthy** choices as these won't raise blood sugar as fast and also help to maintain a healthy weight

**Remember portion sizes!**

# Nutrition and Diabetes Myths

- Myth: There are too many rules with a diabetes diet
  - You do need to plan your meals and make healthy choices. You will probably need to make changes. But these changes are the same as following a healthy diet for other reasons- a diet that everyone should be eating!
- Myth: Eating too much sugar causes diabetes
  - The exact causes of diabetes are not known. Simply eating too much sugar is unlikely to cause it. Diabetes happens when something disrupts your body's ability to use insulin.

# Nutrition and Diabetes Myths

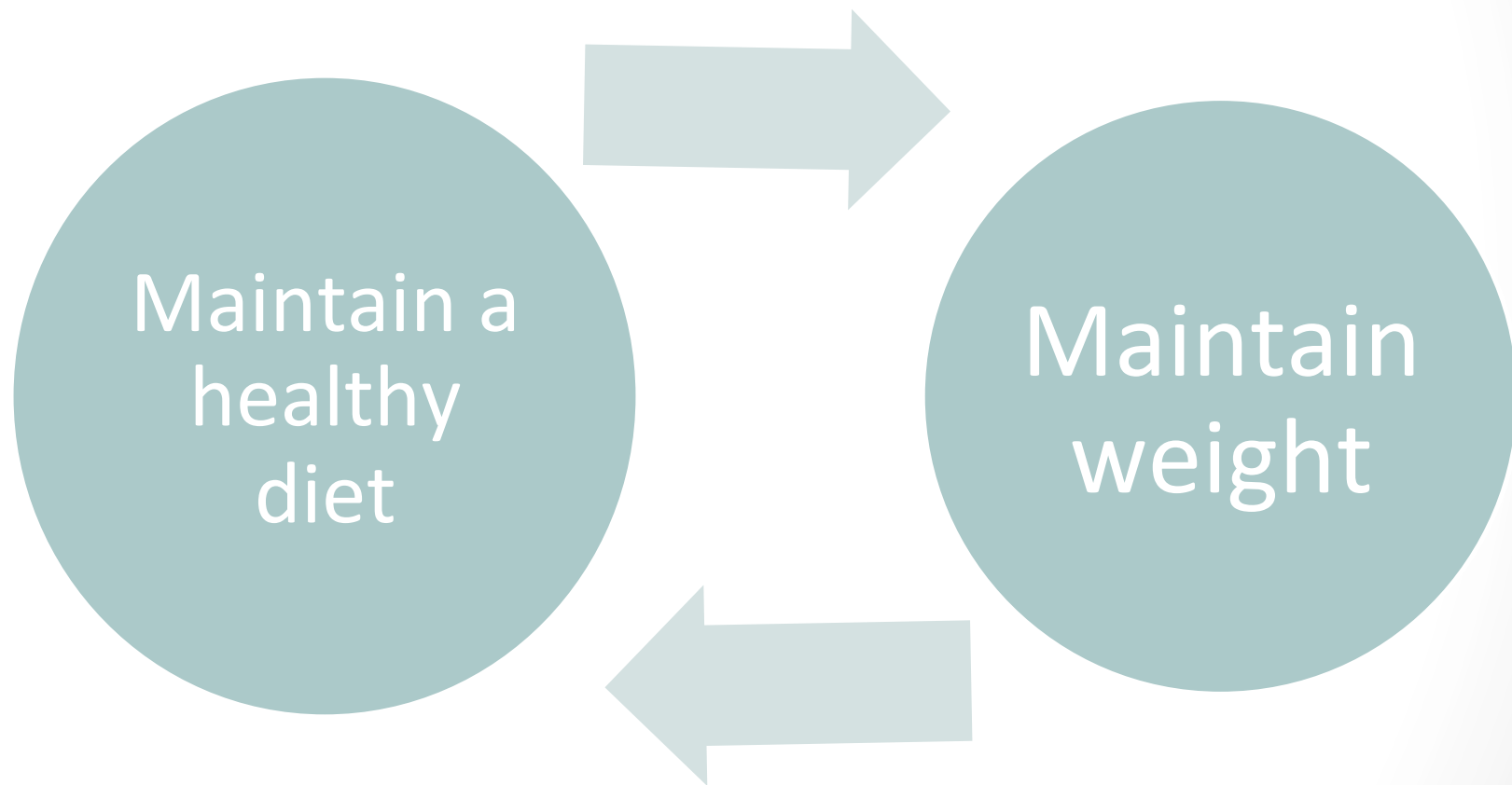
- Myth: Carbohydrates are bad for diabetes
  - Carbohydrates have the greatest effect on blood sugar levels, so you will need to monitor how much you eat. But your body needs carbohydrates to get many essential nutrients.
- Myth: You have to give up desserts and sugar if you have diabetes
  - You can still have desserts, but you will need to cut down amounts. You can use artificial sweeteners, or make more nutritious desserts that include fresh fruits.
- Myth: You need to eat special diabetic meals
  - There is no such thing as a 'diabetic diet'. The choices that are healthy for someone with diabetes are the same for everyone.



# Stroke

- 3<sup>rd</sup> leading cause of death in the U.S.
- Controllable Risk Factors
  - Medical Factors
    - High blood pressure, atrial fibrillation, high cholesterol, diabetes, atherosclerosis, circulation problems
  - Lifestyle factors
    - Smoking, alcohol use, physical inactivity, obesity
- Uncontrollable Risk Factors
  - Over age 55, male, African American, Hispanic, Asian/Pacific Islander, family history of stroke or transient ischemic stroke (TIA)

# Nutrition and Stroke



# Nutrition and Stroke

- Low in saturated fat
  - To limit calories
- High in omega-3 fatty acids
- High in fruits and vegetables
  - A recent study found that eating 5 servings of fruits and vegetables each day can reduce stroke risk by 30%
- Limit sugary beverages
- Low in sodium/salt
  - To help prevent and control high blood pressure


# Sodium Control

- Salt = sodium
- Small amounts are needed
  - Helps maintain fluid balance, transmit nerves, influence muscle contraction
- **BUT 9 out of 10 Americans eat more salt than recommended**

Recommendation  
<2300mg per day

**1500mg per day or less if:**  
51 or older, African American,  
High Blood Pressure,  
Diabetes, Chronic Kidney  
Disease

Actual  
>3400mg per day



# Sodium

- Why a problem:
  - Since sodium attracts and holds water, increases the volume of blood, making your heart work harder to move blood through your body
    - increases blood pressure
- Some diseases people are more sensitive to the effects of sodium than others, meaning you retain sodium more easily
  - Leads to increased fluid retention and increased blood pressure
    - If it continues, can lead to heart disease, stroke, kidney disease, and congestive heart failure



# How to Get Less Sodium



= 2300mg, one day's limit

## Where we get sodium from:

- **Packaged foods**
  - Soups, frozen meals, cheese, cold cuts and bacon, fast foods
- **Naturally occurring**
  - Some foods naturally contain sodium (i.e, 1 cup milk has 107 mg sodium)
- **Added salt from salt shakers and condiments**

# Limiting Sodium

- Include lots of fresh foods
  - Fresh fruits, vegetables
  - Frozen OK
  - Rinse canned vegetables and beans with water
- Make your own foods instead of buying packaged or getting from a restaurant
- Look for lower-sodium options
  - Frozen meals with 600mg sodium or less per serving (and check the serving size too!)
  - Choose unprocessed meats (limit salami, bacon, sausage, lunch meats)
  - Look for reduced sodium cheeses
- Season your food with things other than salt





# Food Safety

- Avoid food poisoning from harmful bacteria, viruses, parasites, toxins and contaminants by practicing food safety
- 1 in 6 Americans will get food poisoning this year
- Particularly at risk:
  - Pregnant women
  - Older adults
  - People with chronic diseases



CLEAN



SEPARATE



COOK



CHILL

# Food Safety

- CLEAN

- Wash hands and surfaces often
- Wash fruits and veggies

- SEPARATE

- Use separate cutting boards and plates for produce and for meats/poultry/seafood/eggs
- Separate meat/poultry/seafood/eggs from all other foods in your grocery cart and bag and in your refrigerator

- COOK

- Bacteria grow in the danger zone between 40 and 140 degrees
- Use a food thermometer
- Keep food hot after cooking
- Microwave food thoroughly (to 165 degrees)

- CHILL

- Put perishable foods in the fridge within 2 hours
- Never thaw foods or marinate on the counter
- Know when to throw foods out



**SPOTS↑**  
most commonly  
MISSED!



**COOK**

WHEN THE TEMP IS RIGHT,  
TAKE A BITE!

COOK CHICKEN TO 165°F  
COOK HAMBURGERS TO 165°F  
COOK LEFTOVERS TO 165°F



**CHILL**

ARE YOU  
COOL ENOUGH?

**GOT** bad bacteria?

IF YOUR FRIDGE IS WARM YOU DO!  
KEEP IT 32 TO 40°F



LEFTOVERS HELP  
KEEP YOU ALIVE!  
BUT ONLY IF  
YOU REHEAT 'EM  
TO 165°F.



CHILL LUNCH &  
LEFTOVERS  
WITHIN 2 HOURS.



Category	Food	Temperature (°F)	Rest Time
<b>Ground Meat &amp; Meat Mixtures</b>	Beef, Pork, Veal, Lamb	160	None
	Turkey, Chicken	165	None
<b>Fresh Beef, Veal, Lamb</b>	Steaks, roasts, chops	145	3 minutes
<b>Poultry</b>	Chicken & Turkey, whole	165	None
	Poultry breasts, roasts	165	None
	Poultry thighs, legs, wings	165	None
	Duck & Goose	165	None
	Stuffing (cooked alone or in bird)	165	None
<b>Pork and Ham</b>	Fresh pork	145	3 minutes
	Fresh ham (raw)	145	3 minutes
	Precooked ham (to reheat)	140	None
<b>Eggs &amp; Egg Dishes</b>	Eggs	Cook until yolk and white are firm	None
	Egg dishes	160	None
<b>Leftovers &amp; Casseroles</b>	Leftovers	165	None
	Casseroles	165	None
<b>Seafood</b>	Fin Fish	145 or cook until flesh is opaque and separates easily with a fork.	None
	Shrimp, lobster, and crabs	Cook until flesh is pearly and opaque.	None
	Clams, oysters, and mussels	Cook until shells open during cooking.	None
	Scallops	Cook until flesh is milky white or opaque and firm.	None

# Food Safety Myths

- Myth: Rinsing meat/poultry/seafood first gets rid of bacteria
  - This can actually increase risk by splashing juices on sink and counters
- Myth: I don't need to wash fruits or veggies if I'm going to peel them
  - Bacteria can transfer from the peel or rind to the inside, so important to wash all produce
- Myth: It's OK to thaw meat on the counter. Since it starts out frozen, bacteria really isn't a problem.
  - Actually bacteria grow fast at room temperature, so best to thaw in the refrigerator or under cold running water.
- Myth: Leftovers are OK until they smell bad
  - The kinds of bacteria that can cause food poisoning do not affect the looks, smell or taste of food, use a safe storage times chart.

# Food Storage Times

- <http://www.foodsafety.gov/keep/charts/storagetimes.html>

Category	Food	Refrigerator (40 °F or below)	Freezer (0 °F or below)
Leftovers	Cooked meat or poultry	3 to 4 days	2 to 6 months
	Chicken nuggets or patties	3 to 4 days	1 to 3 months
	Pizza	3 to 4 days	1 to 2 months

# Nutrition and Chronic Disease

- Eating well, regularly exercising, taking medications and following doctor's orders can help people feel and stay healthy.
- Planning meals is very important
- Consider working with your doctor or a dietitian to help create a meal plan (especially for people with diabetes)





# Great References

- [Diabetes.org](http://Diabetes.org)
- [Heart.org](http://Heart.org)
- [Stroke.org](http://Stroke.org)
- [Eatright.org](http://Eatright.org)
- [Foodsafety.gov](http://Foodsafety.gov)

