Safety in the Kitchen

- Safety = A Must When Cooking!
- Did you know that more accidents happen in the kitchen than any other room in the house?
- Safety can be divided into two very important areas:
  - **Personal Safety** in the kitchen.
  - **Food Safety** - preventing food-borne illnesses.
Personal Safety

〇 Many kitchen accidents are due to lack of information or carelessness.
  〇 Chemical poisoning, cuts, burns, fires and falls are the most common of these accidents.
  〇 Electric shock and choking follow close behind.
〇 You can prevent many accidents by:
  〇 Properly using and caring for equipment.
  〇 Noticing and correcting potential dangers.
  〇 Being organized and following directions.
  〇 Keeping your kitchen clean.
Ways To Prevent Food borne Illness

- Sanitation – Keep yourself and your kitchen clean.
- What are things you should be doing before you cook for personal and kitchen cleanliness?

- **Wash hands with hot, soapy water.**
- **Scrub hands, wrist and fingernails for at least 20 seconds.**
- **Rinse with hot water.**
- **Dry with a paper towel.**
Personal Cleanliness

- Personal cleanliness in the kitchen begins with clean hands.

- Keep your hair out of food, turn your face away if you sneeze, and keep your nails clean.

- Always wear clean clothes and avoid touching your hair while working in the kitchen.
Food Safety

Preventing Food-Borne Illnesses:

- A food-borne illness is an illness transmitted by food.
- Millions of cases of food-borne illnesses occur in the U.S. each year. Many go unreported because people mistake their symptoms for the “flu”.
- Up to 85% of food-borne illness can be avoided.

A food borne illness can result in one of two ways:

- **Contaminants** – substances that have accidentally gotten into food.
- **Bacteria** – micro-organisms that multiply and under certain conditions can cause people to get sick.
Sanitation in the Kitchen

Wipe lids of cans before opening them, and wash your can opener after each use.
Sanitation in the Kitchen

Keep sponges clean. You can boil them in water for a short time or you can saturate them with a diluted bleach solution (2 teaspoons of chlorine bleach in 1 quart of water). You can even moisten them with water and heat them in the microwave until they steam or put them in the dishwasher to be cleaned with the dishes.
Sanitation in the Kitchen

Use clean, covered containers to store food.
Sanitation in the Kitchen

Run the garbage disposal immediately after placing food in it to keep it free from rotting food. Make sure your hands and utensils are completely out of the disposal before you turn on the disposal.
Sanitation in the Kitchen

Wash knives, utensils, and countertops with hot, soapy water after each use. As an additional step, you can sanitize them with a bleach solution.
Sanitation in the Kitchen

Use a stiff nylon brush and hot, soapy water to wash cutting boards after each use, particularly after cutting raw meat or poultry. Most cutting boards can be put into the dishwasher to be cleaned. Replace heavily scratched cutting boards, which are difficult to clean.
Sanitation in the Kitchen

Use a clean spoon every time you taste food during cooking.
Sanitation in the Kitchen

Dishtowels and dishcloths provide a haven for unsafe bacteria. Make sure that you wash your dishtowels and dishcloths often in the washing machine using hot water.
The way you prepare and serve food is another important component of food safety.
Safe Food Preparation and Service

- Safe food preparation includes:
  - washing produce
  - using separate cutting boards for meat and vegetables
  - thawing food safely
  - waiting before tasting food
  - cooking food until done
  - heating leftovers properly
  - after meat is removed from marinade, the marinade should be thrown out
Food safety knowledge can help you and others:

- Avoid getting sick
- Make informed choices regarding places and food you eat
- Get a job in a food-related field
Common Foodborne Pathogens

- Campylobacter
  - 2-5 days to appear; lasts 7-10 days
  - Causes abdominal cramps, bloody diarrhea, nausea, headaches, muscle pain and fever
  - Found in undercooked meat, poultry and raw milk
  - 2-4 million cases per year
  - Kids under 5 and young adults (15-29) are most likely to become sick
Common Pathogens cont

- Shigella
  - 12-50 hours to appear
  - Causes abdominal cramps, diarrhea, fever, sometimes vomiting and bloody stools
  - Unsanitary practices by humans, milk/dairy products, contaminated water
  - 300,000 cases annually in the US
  - 10-15% fatality rate with certain strains
Common Pathogens cont

- **Salmonella**
  - 6-48 hours to appear; lasts 1-2 days
  - Causes abdominal cramps, diarrhea, nausea, vomiting, headache, and fever
  - Found in undercooked chicken, eggs, and milk
  - 2-4 million cases annually
Common Pathogens cont

- E.coli 0157:H7
  - 12-17 hours to appear; lasts about 8 days
  - Causes severe abdominal pain, bloody diarrhea and can produce a deadly toxin; generally no fever
  - Found in undercooked hamburger meat, unpasteurized fruit juice, and unclean produce
  - 50% mortality rate in elderly

Food Safety
FAT TOM - Environment for optimal growth

- Food
- Odor
- CIDITY
- Time
- Temperature
- Oxygen
- Moisture
Four Steps of Food Safety

- Clean – hands and surfaces
- Separate – Don’t cross contaminate
- Cook – Check for proper temperatures
- Chill – Refrigerate promptly
Cross Contamination

- The transfer of harmful microorganisms from one item of food to another by:
  - food-contact sources
  - raw food to cooked food

- Sources: hands, cutting boards, countertops, dishcloths, dish towels, sinks, utensils, refrigerator shelves and drawers, dishes
What About The Dishes

O How to Wash Dishes Properly:

O Scrape extra food into the garbage.

O Prepare your water, make sure it’s very warm, and has enough soap to clean your dishes.

O Wash glasses first, then silverware, plates, and cups. Wash pots and pan last, they will make the water greasy.

O Dry dishes with a clean dish towel and put away.

O Put away dirty towels and dish clothes into the laundry basket.
Scary FDA and USDA Stats

- One-forth of main meal cooks do not wash their hands after handling raw meat and fish.
- Two-thirds of main meal cooks do not wash their hands after handling raw eggs.
How to avoid cross contamination:

- When grocery shopping...
- When refrigerating food....
- While preparing food....
- When using cutting boards....
- When marinating foods....
- When serving foods....
- When storing leftovers...
Cook — Handle Food Properly

Prepare foods as directed and clean them properly.

- USDA Guidelines
  - Ground meat: 160°F
  - Steaks ("medium"): 145°F
  - Whole poultry: 180°F
  - Chicken breasts: 170°F
  - Leftovers: 165°F

- FDA Guidelines
  - Ground meat: 155°F (15 sec)
  - Poultry: 165°F (15 sec)
  - Leftovers: 165°F (15 sec)
Cook – Handle Food Properly

- Store food at correct temperatures.
- The Danger Zone is the temperature range of 40° - 140° F. where certain foods could begin to develop harmful bacteria.
  - Don’t keep these foods longer than 2 hours at room temperature.
- What foods should not be kept in the Danger Zone for too long?
  - Any kind of dairy or meat product
What to do?

- One in four hamburgers turn brown before reaching the safe internal temperature of 160°F.
- Only safe method is by using a meat thermometer.
- Always clean before and after use!
Chill – Cooling Rules

- Thaw foods in the refrigerator, microwave or under cold running water.
- Keep cold foods cold.
- Cool food quickly using in shallow containers.
  - Thick foods such as chili and potato salad
    - 2 inches deep in shallow pan
  - Thin foods such as soup
    - 3 inches deep in shallow pan
Homework

- Page 459
- #1 – terms pasteurize through marinade and perishable through component
- #5-8, 11 – write the question then answer