

FOOD-BORNE ILLNESSES & FOOD SAFETY



Hazards in Food Safety

- Three types of hazards that make food unsafe:

- Biological

- Pathogens that cause illness

- Chemical

- Cleaners, sanitizers, polishes

- Physical

- Bandages, dirt, glass/metal shavings



Pests

- Pests can cause two types of contamination:
 - Biological & Physical
- If you spot these signs, alert the manager:
 - Droppings, nests or damage to products, packaging and the facility due to pests.



Food-Borne Illness

- Results from eating contaminated foods containing poisonous toxins.
- Three microbes (PATHOGENS) that cause food-borne illness:
 - Bacteria
 - Viruses
 - Fungi (Yeast and Mold)



Bacterial Growth

- General conditions for bacterial growth are:
 - Warmth
 - Moisture
 - Food
 - Time

Causes of Food-Borne Illness

- Food from unsafe sources
- Inadequate cooking
- Improper holding temperature
- Contaminated equipment
- Poor personal hygiene (not washing hands)
- Sick employees- Notify manager
 - Vomiting, diarrhea, jaundice, sore throat with a fever
- Any food can cause food-borne illness

Symptoms of Food-Borne Illness

- Nausea
- Vomiting
- Abdominal Cramps
- Diarrhea
- Headaches
- Fever
- Fatigue & Body Aches
- Digestive Problems



Most At-Risk

- Young Children
- Older Adults
- Pregnant Women
- Immune-Compromised



Types of Food-Borne Illnesses

● Botulism

- Most Common Source:
 - Improperly Canned Foods/
Bulging Cans
 - Symptoms: double vision,
blurred vision, drooping
eyelids, slurred speech,
difficulty

swallowing, dry mouth, and muscle
weakness



How can we prevent it?

Types of Food-Borne Illnesses

- **E. coli**
 - Most Common Source:
 - Undercooked Ground Beef
 - Symptoms: severe stomach cramps, diarrhea (often bloody), and vomiting



How can we prevent it?

Types of Food-Borne Illnesses

● Hepatitis A

- Most Common Source:

- Feces (Human Waste) from Improper Hand Washing

- Symptoms: flu-like symptoms such as tiredness, stomach discomfort, fever,

decreased appetite, and diarrhea; light-colored stools; more specific symptoms include dark yellow urine, and jaundice (white of eyes and skin become yellowish).



How can we prevent it?

Types of Food-Borne Illnesses

- **Shigellosis**

- **Most Common Source:**

- Contaminated water and food or through contact with contaminated feces
- Symptoms: diarrhea (sometimes bloody), fever, stomach pain, Feeling the need to pass stool [poop] even when the bowels are empty.

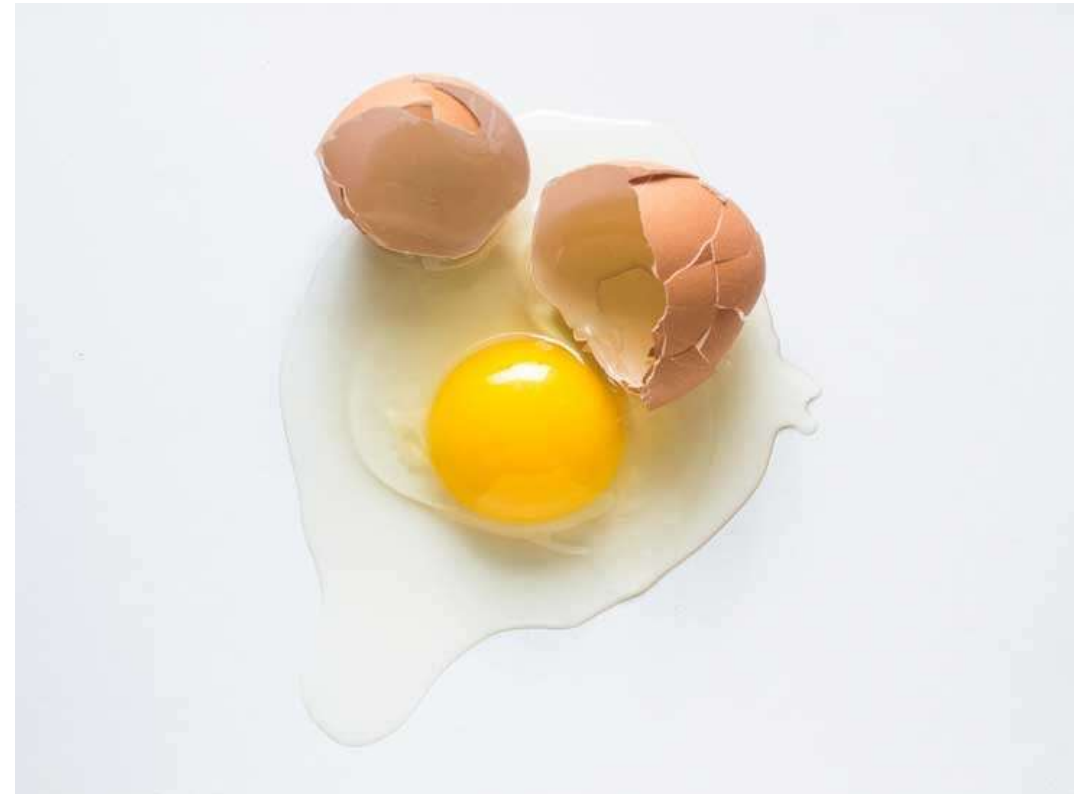


How can we prevent it?

Types of Food-Borne Illnesses

- **Salmonella**

- Most Common Source:
 - Raw Poultry and Eggs
- Symptoms: nausea, vomiting, abdominal cramps, diarrhea, fever, chills, headache, blood in the stool.



How can we prevent it?

Types of Food-Borne Illnesses

- Staphylococcus (Staph)



- Most Common Source:

- Human Mucous (Coughing/ Sneezing)
- Symptoms: rashes, inflammation, boil; range from a simple boil to antibiotic-resistant infections to flesh-eating infections.

How can we prevent it?

Types of Food-Borne Illnesses

- Norovirus

- Most Common Source:

- Infected Food Handler

- Symptoms: nausea, vomiting (more often in children), watery diarrhea (more often in adults), and stomach cramps.



How can we prevent it?

Types of Food-Borne Illnesses

- **Listeria**

- Most Common Source:
 - Improperly processed deli meats and unpasteurized milk products
- Symptoms: diarrhea, nausea, achy muscles, fever



How can we prevent it?

Types of Food-Borne Illnesses

- **Campylobacter SPP**

- Most Common Source:

- Unpasteurized Milk and Contaminated Water

- Symptoms: diarrhea (frequently bloody), abdominal pain, fever, headache, nausea, and/or vomiting.



How can we prevent it?

Types of Food-Borne Illnesses

- Giardiasis

- Most Common Source:
 - contaminated food/
contaminated water
 - Symptoms: fatigue,
nausea, diarrhea or
greasy stools. loss of
appetite, vomiting,
bloating and abdominal
cramps. weight loss,
excessive gas



How can we prevent it?

Types of Food-Borne Illnesses

- Cyclospora

- Most Common Source:

- contaminated food/contaminated water by cyclospora parasite

- **Symptoms:** watery diarrhea, with frequent, sometimes explosive, bowel movements.

Other common symptoms include loss of appetite, weight loss, stomach cramps/pain, bloating, increased gas, nausea, and fatigue.



How can we prevent it?

Preventing Food-Borne Illness

- When in doubt... throw it out!
- Keep hot foods hot and cold foods cold.
- Use proper hand washing techniques. (?)
- Keep foods out of the Temperature Danger Zone. (What is it?)
- Cook, reheat and serve foods to the proper internal temperatures.
- Avoid cross-contamination (How?)

Avoiding Cross- Contamination

- Never place cooked food on a plate which has previously held raw meat, poultry or seafood.
- Separate raw meat, poultry and seafood, from other foods
- Always wash hands, cutting boards and food prep surfaces with hot soapy water after they come in contact with raw meat, poultry or seafood.

Avoiding Cross- Contamination

- Never scoop ice with your bare hands or a glass. Always use ice scoops or tongs to get ice.
- Do NOT hold utensils by the part that comes into contact with food.
- Use tongs, gloves or deli-sheets to serve ready- to-eat foods like bagels.

Avoiding Cross-Contamination

- Change gloves after handling raw meat, poultry and seafood.
- Change gloves after they get dirty or torn.
- Wear bandages over wounds and use a water-proof finger cover over bandages and under gloves.



How to wash your hands properly



1 Wet your hands



2 Liquid soap



3 Lather and scrub - 20 sec



4 Rinse - 10 sec



5 Dry your hands



6 Turn off tap

DON'T FORGET TO WASH:

- between your fingers
- under your nails
- the tops of your hands

Allergens

- Proteins that cause allergic reactions are called allergens.
- Cross-Contact is when one food allergen comes into contact with another food item and their proteins mix.
- The BIG 8 refer to the allergens that cause the most reactions:
 - Milk, Soy, Eggs, Fish, Tree Nuts, Peanuts, Crustaceans Shellfish and Wheat.



Temperature Controls for Safety

- Some foods have a greater risk for microbe (PATHOGEN) growth.
- The best way to control this growth is to cook them to the right temperature, and to not leave them out in room temperature (danger zone).
- What is the longest we can leave leftovers out in room temperature?

Important Temperatures

- Always check the INTERNAL temperature of foods with a food thermometer. Always check the THICKEST part of the food.



Food Storage

- Separate food into smaller containers to cool more rapidly.
- Mark and date food properly.



Thawing Foods Safely

- In the refrigerator for 2-3 days. This is the safest method.
- Under cold, running water.
- In the microwave if used immediately.
- As part of the cooking process
- NEVER defrost frozen food at room temperature.

Activity: Share your opinion

- What is one thing **YOU** need to pay attention to the most when cooking at home?