

FOOD SAFETY

Beth Shephard & Christine Chen-Luke

UF | UNIVERSITY *of*
FLORIDA
IFAS Extension



TYPES OF PATHOGENS

Viruses

Bacteria

Parasites

Fungi



WHAT PATHOGENS NEED TO GROW

FAT TOM

Food

- Proteins and carbohydrates

Acidity

- Little or no acid

Temperature

- Temperature Danger Zone 41 F to 135 F

Time

- No more than 4 hours

Oxygen

Moisture



FOODS MOST LIKELY TO BECOME UNSAFE

Milk and Dairy Products



Meat: Beef, Pork and Lamb

Fish



Baked Potatoes



Tofu or other soy protein

Sliced Melons



Cut greens



FOODS MOST LIKELY TO BECOME UNSAFE

Eggs



Poultry

Shellfish and Crustaceans



Heat-treated Plant Foods

- Rice, beans and vegetables



Sprouts and Sprout Seeds

Untreated garlic-and-oil Mixtures



MAJOR FOOD BORNE ILLNESS

L-I-S-T-E-R-I-O-S-I-S

Foods Involved

- Raw Meat
- Unpasteurized dairy products
- Ready-to-eat food, such as deli meat, hot dogs, and soft cheeses



Prevention

- Controlling time and temperature*
- Throw out any product that has passed its use by or expiration date.
- Cook raw meat to minimum internal temperatures.
- Prevent cross-contamination between raw or undercooked food and ready-to-eat food.
- Avoid using unpasteurized dairy products.

Foods Involved

- Ground Beef (raw and undercooked)
- Contaminated produce



Prevention

- Controlling time and temperature*
- Cook food, especially ground beef, to minimum internal temperatures.
- Purchase produce from approved, reputable suppliers,. Prevent cross-contamination between raw meat and ready-to-eat food.

BOTULISM

Foods Involved

- Incorrectly canned food
- Reduced oxygen packaged food
- Temperature-abused vegetables such as baked potatoes
- Untreated garlic-and-oil mixtures



Prevention

- Preventing Cross-Contamination*
- Hold, cool and reheat food correctly
- Inspect canned food for damage

SALMONELLA

Foods Involved

- Poultry and eggs
- Dairy products
- Produce



- Preventing cross-contamination*
- Cook poultry and eggs to minimal internal temperatures
- Prevent cross-contamination between poultry and ready-to-eat food
- Keep food handlers who have been diagnosed with salmonellosis out of the operation

S H - G E L L A

Foods Involved

- Food that is easily contaminated by hands, such as salads containing (potato, tuna, shrimp, macaroni, and chicken)
- Food that has made contact with contaminated water, such as produce



Prevention

- **Practicing Personal Hygiene***
- **Wash hands**
- **Control flies inside and outside the operation**

STAPHYLOCOCCAL GASTROENTERITIS

Foods Involved

- Salads containing food (egg, tuna, chicken, and macaroni)
- Deli meat



Prevention

- Practicing Personal Hygiene*
- Wash hands, particularly after touching the hair, face, or body
- Cover wounds on hands and arms
- Hold, cool, and reheat food correctly

VIBRIO VULNIFICUS

Foods Involved

- Oysters from Contaminated water



Prevention

- **Purchasing from approved, reputable suppliers***
- **Cook oysters to minimum internal temperatures**

THANK YOU