



COMMUNITY NUTRITION conference

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Food Safety:
It starts with you!



TEXAS DEPARTMENT OF AGRICULTURE
COMMISSIONER SID MILLER





OBJECTIVES

- ✓ Define the terms: foodborne illness (FBI) and foodborne outbreak
- ✓ Prevent Contaminations
- ✓ Identify foodborne illness risk factors
- ✓ Define the term Time/Temperature Control for Safety Food (TCS) and give examples
- ✓ Identify the temperature danger zone
- ✓ Storing, transporting and serving food safely
- ✓ Notable Items of Concern
- ✓ Discussion and Review

Food Borne Illness and Outbreak

Foodborne illness (FBI) – illness transmitted through food to people
Outbreak – An incident in which two or more people experience the same symptoms/illness after eating the same food, it is investigated by state or local authorities, and is confirmed through laboratory analysis

Annual Numbers

48 million illnesses
128,000 hospitalizations
3,000 deaths

Major Risk Factors

- ✓ Purchasing unsafe/unapproved items
- ✓ Failing to cook food adequately
- ✓ Time and temperature abuse
- ✓ Poor personal hygiene

Highly Susceptible Population

- ✓ Young
- ✓ Elderly
- ✓ Weakened Immune System



Preventing Contamination

Contamination can occur from many places: the animals and plants we consume, air, water, dirt and people – either accidentally or on purpose.

Cross Contamination is the transfer of microorganisms (germs) from one food or surface to another.

Biological

Pathogens/Microorganisms

- Bacteria, Viruses, Parasites, Fungi

Toxins

- Naturally occurring toxins in plants or seafood
- Some pathogens produce toxins

Chemical

Chemical materials or excessive/unapproved food additives and preservatives not intended to be in the food

Physical

Any foreign material or natural objects not intended to be in the food .



INSTRUCTIONS

1. Wet hands with warm running water (at least 100° F)
2. Apply soap (enough to lather)
3. Rub vigorously (hands/arms) for 10-15 seconds (scrub between fingers and under nails)
4. Rinse under warm running water
5. Dry hands using one of the following:
 - paper towel (can use to also turn faucet off and open door)
 - hot air hand dryer
 - continuous clean towel system

Note: Entire process should be at least
20 seconds

Proper Handwashing

Time/Temperature Control for Safety

TCS stands for Time and Temperature Control for Safety. A **TCS food** is a type of **food** that is predisposed to pathogenic growth. By following **TCS** guidelines you can limit the pathogenic growth on these types of **foods**.

A food item is determined to be a TCS Food by considering **FAT-TOM**:

Food
Acidity
Temperature
Time
Oxygen
Moisture

Examples:

Eggs, Milk, Cut Leafy Greens, Vegetables and Fruit, Cooked Vegetables and Fruit, Proteins, Baked or Cooked Potatoes, Cooked Rice and Beans.

**partial list*



Clean and Sanitize

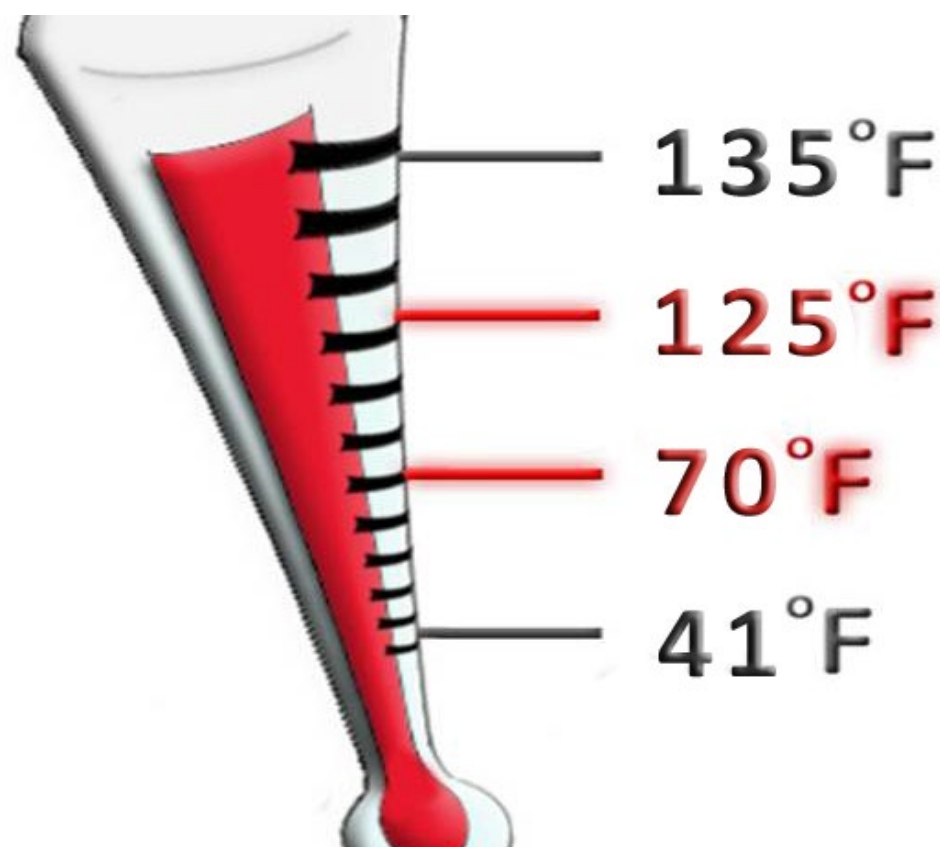
Cleaning is the removal of dirt and grease off a surface.

Sanitizing is the reduction of harmful microorganisms on a clean surface by the usage of heat or chemicals.

Important Note:

Clean every 4 hours if being used to prepare TCS foods.

TEMPERATURE DANGER ZONE



41°F-135°F

Pathogens multiply most rapidly at temperatures between 70°F and 125°F (range can vary slightly).



4 Hour Rule:

- Never let TCS foods stay in the temperature danger zone for more than 4 hours
- The hours begin when the food is received until it is cooked
- Hours accumulate during thawing, preparation, holding, cooling and reheating

Did you know?

Bacteria double in size every 20 minutes.

How does this impact you?



01

Storing

- Store in original containers
- Or label new container with common name of ingredient
- Discard all TCS foods within 7 days
- Store at proper temperatures
- Use First in First Out method (FIFO)



02

Transporting

- Maintain proper temperatures (storage and cooking)
- Separate raw and ready-to-eat foods
- Clean and sanitize
- Vehicles, food-contact surfaces, utensils and equipment
- Date mark and label with instructions
- Provide handwashing facilities



03

Serving

- Hot Holding – 135° and Cold Holding 41°
- Measure every two hours and stir regularly
- Do not mix fresh food and food being served
- Use a barrier when serving food.

STORING, TRANSPORTING, AND SERVING FOOD SAFELY

Objectives: Storing

Describe how to store refrigerated foods.

- 41° or below

Describe how to store frozen foods.

- 0° or below

Describe how to store dry foods.

- 50° - 70°

Explain date marking.

Six inch rule (six inches off the floor and away from the wall)

Objectives: Serving

Know minimum hot- and cold-holding temperatures.

Describe Time as a Public Health Control.

Describe proper ways to serve food.

Describe how to properly display food.

Know how to safely distribute foods off-site

Refrigerator or Cooler

Cut items such fruits and vegetables or ready-to-eat items.

Unwashed produce such as fruits and vegetables. Items could be cooked when serving a PHP.

135°

Items such as roast, steak, pork chops, or fish.

145°

Ground meats and egg dishes

155°

Poultry, stuffed meats, leftovers, or stuffing.

165°

COLD STORAGE PRINCIPALS

- Date mark
- Tightly wrapped or in closed container
- Store foods separately
 - Ready-to-eat foods above raw food
 - Poultry on bottom
 - **Store based on internal cooking temperatures**
- Store 6 inches above the floor
- Check temperatures of food and units often
- Maintain internal temperature of 41°F or below
 - **Standard coolers hold temperature at 25%**
- Do not overload and keep doors closed tightly

Food Safety starts with you!

Thawing Food Safely:

NEVER thaw food at room temperature

Four safe ways to thaw food

In the refrigerator

In the sink under cold running water

In the microwave

As part of the cooking process

Cooking Food Safely:

Internal Cooking Temperatures

Two methods of calibrating a thermometer

Cooling Food Safely

Divide Foods

Use rapid cooling equipment

Two Stage Cooling Method:

135° to 70° in 2 hours

70° to 41° in 4 hours



135° for 15 seconds

Cooked fruits

Cooked vegetables

Grains (rice and pasta)

Legumes (beans)



145° for 15 seconds

Roast beef, Corned beef (see course book for more information)

Steaks/Chops of pork, beef, veal, lamb

Shell eggs for immediate service

Whole Fish, Seafood, or Pork



155° for 15 seconds

Ground meats, including ground

Shell eggs held hot



165° for 15 seconds

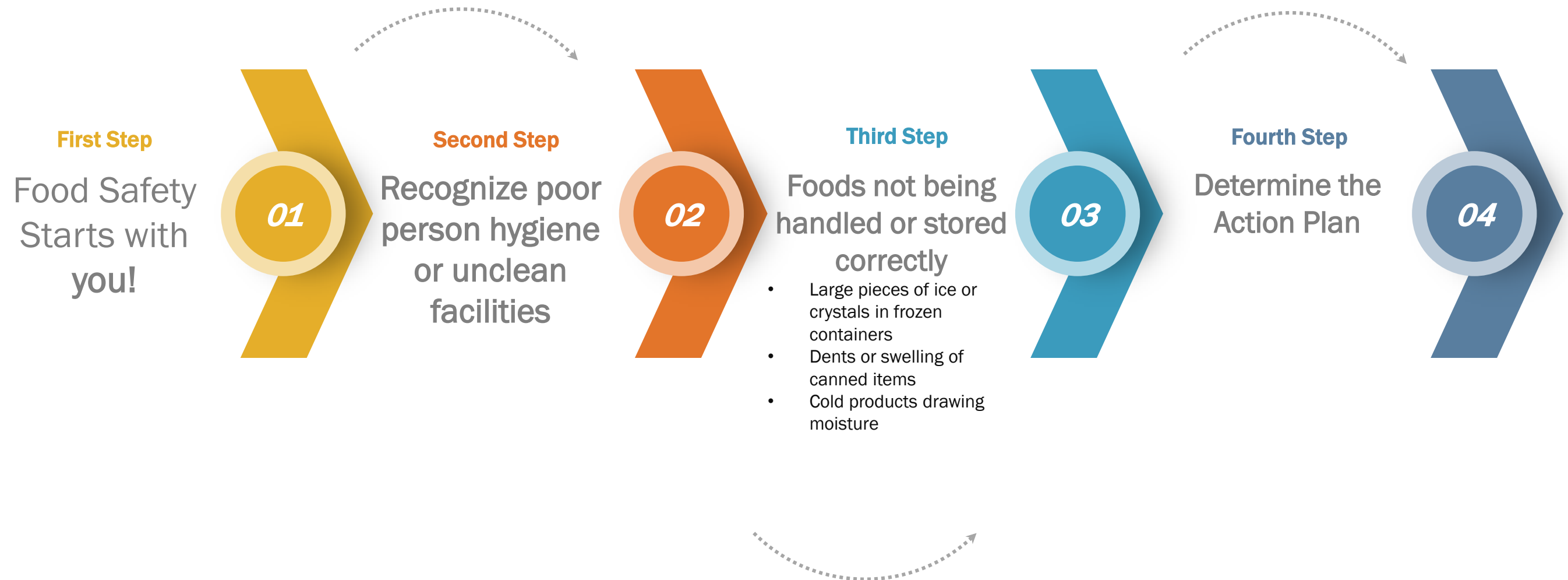
Poultry

Stuffing containing meat

Microwave-cooked food

Reheated food

Notable Items:



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