RiverStone Health | Public Health

Summer 2024

Boiling Point!

News for Licensed Food Establishments

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Protecting Public Health through food protection and food safety education

Summer is finally here!

Summer is here and looks like another hot one. Hot weather can make keeping food cold a challenge. Inspection violations related to cold holding are frequent. This issue of Boiling Point focuses on why cold holding is critical to food safety, with a focus on several foods that you may not realize need to be kept refrigerated.

Most Common Violation #2: Cold Holding

Cold holding is the term inspectors use to describe refrigeration of food.

"TCS foods" are items that must be held at 41F or lower because they are potentially hazardous. **TCS stands for (Time/ Temperature Controlled for Safety).**

Bacteria or spores are present in all of our food. Keeping foods at 41F or below slows the growth of bacteria, which protects food from spoiling. This also prevents the growth of pathogens like Listeria. Listeria can still grow slowly at 41F, so it is important to use date marking and cold holding.

Cold holding also prevents spores from generating more bacteria after cooking. Spores are like bacterial seeds that are resistant to extreme environments, like getting cooked. Some pathogens, like *Bacillus cereus* or *Clostridium perfringens* produce spores. So even if cooking kills the live bacteria, the spores can hatch in the prepared food if it is not cooled properly. These spores can sicken people after being eaten.

An accurate thermometer is an important investment to ensure that food is being held at safe temperatures and is cooled properly. This protects your customers and your establishment.

Time / Temperature Controlled for Safety (TCS) - Unexpected Culprits
Historically, most raw fruits and vegetables were considered non-TCS foods, but we now know that some do need to be carefully handled and kept cold for safety. Three foods that need more care and must be maintained at 41ºF (5ºC) or less include cut leafy greens, cut tomatoes, and cantaloupe.

Culprit: Cut Leafy Greens	
Lettuce, spinach, spring mix, kale, escarole, arugula, cabbage, chard, and endive that is cut, torn, shredded, sliced or chopped	
Cause for Concern	Contamination with bacteria can occur with irrigation water, during harvesting, processing, or packaging. Between 2014 - 2021, 78 unique foodborne disease outbreaks due to cut leafy greens were reported in the US. When leafy greens are cut, bacteria can multiply and become more dangerous.
Tips to Keep Customers Safe	✓ Store cut greens at 41°F (5°C) or less. ✓ Fresh leafy greens cut in the food establishment must also be date marked, then discarded if not sold or served within 7 days. ✓ Commercially processed salad mixes in bags or containers must also be discarded after opening if not sold or served within 7 days.

Culprit: Cut Tomatoes	
Cause for Concern	Fresh tomatoes provide a great environment to support the growth of Salmonella, a potentially dangerous pathogen. If a tomato is cut, Salmonella has access to those great growth conditions, so cut tomatoes are considered a TCS food. Fresh tomatoes are often eaten raw with no "kill-step" that would eliminate pathogens, increasing potential risk. Salmonella can survive in the environment for months. At the farm, Salmonella can be carried by irrigation water, water flumes or wash water. Tomatoes can also be contaminated in storage or transportation by other foods, such as raw meat, or from contact with dirty equipment in the kitchen. Lack of adequate handwashing by food workers or working with food while sick also contributes to food contamination. There have been 38 outbreaks linked to fresh tomatoes in the US since 1990, greater than 4000 illnesses and 4 reported deaths. Salmonella was confirmed as the cause in 30 of these.
Tips to Keep Customers Safe	✓ Salmonella is difficult to remove from whole tomatoes. Discard damaged tomatoes. ✓ Tomatoes should always be washed before use. The temperature of wash water should be at least 10°F warmer than the tomato temperature.

Culprit: Cantaloupe	
Cause for Concern	The rind of a cantaloupe looks invincible, with that rough netted armor. However, because of this netting, washing is not always enough to get rid of bacteria. Melons are grown close to the ground, and cantaloupe rinds may be exposed to bacteria from soil, animals, or irrigation water. If the cantaloupe becomes moldy or damaged, bacteria have easy access to the inner flesh, where they can multiply over time. This can also happen when cantaloupe is sliced. Contaminated cantaloupes are blamed for numerous outbreaks and recalls. *Salmonella* is the most common pathogen found in cantaloupes, but the deadliest outbreak was due to a *Listeria* outbreak that caused foodborne illness in 147 people and killed more than 30.
Tips to Keep Customers Safe	✓ Store whole melons unwashed, and keep all storage areas clean, dry and separate from chemicals. ✓ Damaged cantaloupes spoil quickly and could allow growth of pathogens. Avoid cantaloupes that have a damaged or cut outer rind, are mushy, molded, shriveled or leaking juice or are damaged at the end where the stem was attached. ✓ In the refrigerator, keep both cut and whole cantaloupe separate from raw beef, poultry, fish and seafood. ✓ The FDA recommends washing whole cantaloupes thoroughly in a clean and sanitized sink under clean, running water. Use a clean and sanitized fruit/vegetable brush to vigorously scrub the outside of the cantaloupe under running water to remove dirt and bacteria. ✓ To prepare cut cantaloupe, first cut off and throw out the stem end of the cantaloupe. Pathogens that can cause foodborne illness may hide in this area of a melon. Next, slice the cantaloupe in half, remove the seeds and cut off the rind. Refrigerate the sliced melon within 2 hours of cutting it. Store it in plastic bags or clean, airtight containers.

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Thank you!

EHS Customer Service Survey

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