

THE SURPRISING ITEM YOU SHOULD SKIP AT THE BUFFET TO AVOID GETTING SICK

by Caroline Morse Teel

It's present on nearly every buffet, piled in fluffy mounds. It's the bland food you are told to eat when you have an upset stomach. But it can be really dangerous if not kept at the correct temperature. Yes, it may be surprising, but rice can make you sick.

Uncooked rice can contain a bacteria called *Bacillus cereus*, which can sometimes survive the cooking process. According to FoodSafety.gov, if rice is not kept at 140 degrees when it is left out for two hours or longer, any remaining bacteria can multiply and make you sick if you eat that rice.

Symptoms will set in quickly, anywhere from 30 minutes to 15 hours after eating, and can cause vomiting and diarrhea. You will be sick for about 24 hours if you fall victim to *Bacillus cereus*.

Checking with Janilyn Hutchings, a Certified Professional in Food Safety, what signs to watch for at a buffet to make sure the food you are eating is safe, Hutchings advises to look for these three red flags:

1. Food that is supposed to be hot ...isn't.
2. Food that is supposed to be cold is thawing or melting
3. Buffet workers put new food on top of old food instead of replacing an entire container of old food with a new container of fresh food.

Which Foods should you avoid at buffets: Rice falls into the category of Time or Temperature Control for Safety Foods. According to Hutchings, these are foods that have high carbohydrate and protein levels, are neutral or slightly acidic and contain moisture. Other foods in this category that you are likely to find on the buffet include sliced melons, cut greens and meat.

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Time/Temperature Control for Safety (TCS) Foods

Also known as Potentially Hazardous Foods, or PHFs



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TO GROW, BACTERIA NEED:



FOOD



WARMTH



MOISTURE

TO STOP BACTERIA FROM GROWING:



- Control food temperature
- Control the amount of time food spends in the Temperature Danger Zone (41°F-135°F)

Recognizing TCS foods and knowing how to properly handle them is an important factor of food safety. This article walks through all the basics of TCS foods to help you learn more about them and know how to keep your customers or guests safe. Recognizing TCS foods and knowing how to properly handle them is an important responsibility for both food managers and food handlers.

What is a TCS food?

Some foods are more vulnerable to pathogen growth than others. TCS foods are foods that:

- Have high carbohydrate and protein levels
- Are neutral or slightly acidic
- Contain moisture

Most common TCS foods

The most common TCS foods include:

- Meat products
- Eggs
- Fish and shellfish
- Dairy
- Cream or custard
- Cooked vegetables
- Potato dishes
- Protein-rich plants
- Raw sprouts
- Cut leafy greens
- Cut garlic in oil
- Sliced melons and tomatoes

Why TCS foods can be dangerous

Bacteria need just three things to grow: food, moisture, and warmth. Small amounts of bacteria growth in TCS food are not a problem, but too much can cause foodborne illness. TCS foods have the nutrients and moisture bacteria need to grow. Add time and warmth to the mix, and these foods can become bacteria breeding grounds.

Time is an important part of bacteria growth. When bacteria have food, warmth, and moisture, their numbers can double every twenty minutes. After four hours, most TCS foods will have a high enough bacteria count that they become dangerous to eat.

The temperature of TCS foods can also encourage bacteria growth. The temperature range between 41° and 135° Fahrenheit creates conditions for rapid bacteria growth. This temperature range is so well suited for bacteria that it's called the temperature danger zone. TCS foods in the temperature danger zone will grow bacteria quickly and can easily become hazardous.

How to keep TCS foods safe

TCS foods can be kept safe by minimizing the time they spend in the temperature danger zone (41–135° F). When food is in the temperature danger zone, pathogens grow and multiply at a fast rate and can make food unsafe to eat.

In restaurant service, the two most common ways of controlling pathogen growth are time and temperature controls.

How long can food be left out?

TCS foods that are ready-to-eat can be safely consumed in a four hour window. If they have not been temperature controlled, they should be discarded after four hours. Hot held and cold held

foods can be served for four hours without temperature controls if they are discarded after the four-hour time limit.

Cold foods can be served for six hours as long as the food temperature stays below 70° Fahrenheit. Discard cold food that warm to over 70° Fahrenheit. If you do not regularly check the temperature of cold food that is not temperature controlled, you should throw it away after four hours.

The temperature danger zone

To prevent dangerous growth, TCS foods are kept out of the temperature danger zone or moved through it quickly. Food temperatures are controlled with freezing, refrigeration, or holding. Food is refrigerated or frozen until it is prepared for service. If needed, cooked TCS foods can be safely cooled for later use by using the two-step cooling method. Ready-to-eat TCS dishes can be hot held above 135° or cold held below 41° Fahrenheit.

There are times when TCS foods will pass through the temperature danger zone, such as warming and cooling. In order to keep foods safe, do your best to minimize the time food spends in the temperature danger zone.

Cooling foods

When cooling foods, the FDA Food Code recommends a two-stage cooling process. First, the food should be cooled from 135° to 70° degrees Fahrenheit in two hours or less. Second, the food should be cooled from 70° to 40° Fahrenheit in four hours or less. Total cooling should not exceed six hours.

Large batches of food, such as a large pot of stew, should not be cooled in one large container in a refrigerator. Doing so does not allow the food to cool fast enough and keeps the food in the temperature danger zone for too long and allows pathogens to grow to an unsafe level.

An inexpensive way to properly cool large batches of food is to divide it into smaller containers.

Keep the containers uncovered while cooling to prevent extra moisture, but be sure to cover it when it has finished cooling.

Warming foods

When reheating foods that will be hot held, the food should be heated to 165° Fahrenheit or higher. Foods should reach 165° F in two hours or less. Because foods must be reheated in a quick manner, it is important to use appropriate cooking or rethermalizing equipment such as a microwave, stove, or oven. Do not attempt to reheat food for hot holding in warming trays or other hot-holding equipment because these devices will not warm up the food fast enough and will allow pathogens to grow.

These methods of time and temperature control effectively prevent bacteria growth. With good controls, bacteria growth can be limited and TCS foods kept safe.

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—Suzanna Sandridge