

Food Safety at Tailgating¹

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When summer is almost over and the weather gets cooler, tailgating season is here. Tailgating is an American tradition where food is cooked and served on and around the open tailgate of a vehicle. This is a social event that usually occurs in the parking lot of a sporting event. While tailgating can be great fun for family and friends, you need to make plans and take on-site precautions to keep your food safe during these events. Since refrigerators and running water are not always available outdoors, you should familiarize yourself with safe food handling practices and plan to bring enough coolers/ice and all the tools you need to keep and cook your food safely. This factsheet provides information on safe

food practices for tailgating and other outdoor sporting events.

How should I pack foods safely for tailgating and sporting events?

To ensure the food safety of the meal you are preparing, foods should be held continuously within safe temperatures (cold food at 40°F or below and hot food at 140°F or above). Guarantee you have enough insulated coolers and ice to hold all your perishable food and beverages at the proper temperature during transport and at the event. These coolers should be cleaned first by removing any standing water or food residues and sanitized by wiping the inside with disinfecting wipes. Then, the coolers should be packed with ice or frozen gel packs to keep food cold, especially on hot days. A plug-in car cooler can be used to hold foods during the event instead of adding ice to coolers. Place a thermometer in the cooler so you can check if the temperature of cold food inside the coolers stays at 40°F or below. It is important to remember to keep cold food cold, but don't forget to keep hot food hot. Get a separate insulated container for your hot foods to ensure they stay safe. Food stored in the temperature danger zone, which is between 40°F and 140°F, can cause harmful germs (bacteria) to multiply quickly in perishable foods. Here are some packing tips for tailgating:

- Pack raw meat and poultry separate from ready-to-eat foods. Using separate coolers for raw meat and poultry

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is ideal, but if this option is not available, wrap all foods securely with multiple plastic bags and, if possible, use the secondary containers inside the cooler to separate raw meat and poultry from ready-to-eat foods. Keep in mind that juices from raw meat and poultry can cross-contaminate other foods, which can lead to a foodborne illness.

- Pack pre-cooked, perishable food, such as cooked meat and chicken, in a cooler as well. Even though they are pre-cooked, they still need to be kept cold to prevent harmful germs from growing. Most side dishes, including potato salad and pasta salad, also should be packed in the cooler. The rule of thumb here is that if an item you are packing is something you normally find in the refrigerated section in a grocery store, then you should pack it in a cooler.
- If you bring any hot foods, such as soup and chili, use an insulated container to keep them hot. Before putting hot food in the container, pre-warm the container by filling it with boiling water for several minutes. This helps food stay hot longer. When properly prepared, an insulated container should keep food hot (140°F or higher) for several hours. If you have a long trip and cannot keep hot food hot during the drive, chill the food in the refrigerator in advance, pack in a cooler, and reheat at the tailgate event.
- If you bring hot take-out food, eat it within two hours of your purchase or within one hour if the outside temperature is above 90°F (USDA-FSIS 2007; FDA 2017).
- Pack a food thermometer so you can monitor the temperature of meat and poultry during cooking.
- If you plan to serve shelf-stable beverages, it is preferable to pack them in a separate container than the cooler containing perishables. Repeatedly opening your container for drinks causes undesirable temperature loss in perishables.
- Bring water for hand washing and general cleaning in case there is none available at the tailgating site. Pack clean, wet paper towels or wet wipes for cleaning hands and food contact surfaces. Pack extra utensils—one set for preparing your food and another for serving food, in case washing or cleaning them is not convenient at the tailgating site.
- Try to bring only the amount of food that will be eaten that day to avoid having too many leftovers.

How should I cook foods safely at tailgating and sporting events?

A large percentage of foodborne illnesses are spread by contaminated hands. Thus, washing hands with soap and water is the best way to reduce the risk of foodborne illness and other infections. However, at outdoor events, such as tailgating, hand washing facilities are not always available. If soap and water are not available, it is important to first clean your hands with a moist, disposable towelette and then use an alcohol-based hand sanitizer that contains at least 60% alcohol. Most commercial sanitizers have this percentage (or close to it), which is very effective in killing harmful microorganisms. Hand sanitizers with lower alcohol concentrations or non-alcohol-based hand sanitizers do not work as well (Kampf and Kramer 2004; Todd et al. 2010). However, many studies show that hand sanitizers cannot eliminate all types of germs (Charbonneau et al. 2000; Grayson et al. 2009; Oughton et al. 2009; Liu et al. 2010; Blaney et al. 2011), and they may not work well with very greasy or dirty hands, which are common after handling food or playing sports (Charbonneau et al. 2000; Pickering et al. 2011). Therefore, it is recommended that you wash hands with soap and water whenever possible.

When you cook at a tailgating event, it is critical that food reaches a safe minimum internal temperature to destroy harmful pathogens that may be present in food. Safe minimum internal temperatures for different types of food are shown in Table 1. Keep in mind that the only way to confirm the internal temperature of meat is to use a calibrated food thermometer. Following are cooking tips for tailgating:

- Cook food to a safe minimum internal temperature to destroy harmful pathogens (Table 1). Cook all raw beef, pork, lamb steaks, chops, and roasts to 145°F or higher; all raw ground meats to 160°F or higher; and all poultry to 165°F or higher as measured with a food thermometer. Keep in mind that using a thermometer is the only way to confirm the internal temperature of meat.
- Meat should be either cooked completely at home and then reheated at the event or cooked completely at the tailgate location. Partially cooking meat or poultry ahead of time without reaching a safe temperature will allow harmful pathogens to survive and grow. When you reheat cooked foods, heat them to 165°F as measured with a food thermometer.
- When taking cooked food off the grill, use a clean platter and utensils. You should not use the platter or utensils

that were used for raw meat or poultry to prevent cross-contamination.

Table 1. Safe minimum internal temperatures.*

All poultry	165°F
Ground meats	160°F
Beef, pork, lamb, and veal (steaks, roasts, and chops)	145°F**
Leftovers	165°F
Reheating	165°F

*Modified from Tailgating Food Safety Q&A (http://www.fs.is.usda.gov/wps/wcm/connect/98a4e643-8c31-4776-83e7-6409b5863ff8/Tailgating_Food_Safety.pdf?MOD=AJPERES)

*As measured with a food thermometer before removing meat from the heat source.

**For safety and quality, allow meat to rest for at least three minutes before carving or consuming. For reasons of personal preference, consumers may choose to cook meat to higher temperatures.

- Once cooked, food should be consumed within two hours or within one hour if the outside temperature is above 90°F.
- Wash your hands with warm water and soap for at least 20 seconds before and after handling food. If water for hand washing is not available, use moist disposable towelettes and then hand sanitizers (alcohol-based with 60% or higher alcohol concentration) or disposable gloves, which should be changed as often as you would wash your hands.
- After touching raw meat or poultry, do not touch other foods without cleaning your hands. You should wash your hands with water and soap or clean your hands with a moist disposable towelette and then hand sanitizer (only when water is not available) before touching other foods. When you use disposable gloves, throw them away after using them with raw meat or poultry.

What should I do with leftovers?

Holding food at an unsafe temperature is one of the main causes of foodborne illnesses. When the tailgate is over, you should make sure that any leftovers are stored properly. Food should not be left unmanaged for too long. If you have leftovers, place perishable items promptly in a cooler. Discard any leftovers that are not properly chilled and any food that was left out of the cooler or off the grill at more than two hours (one hour when the temperature is above 90°F). When in doubt, throw it out. It is always best to plan ahead and limit excess perishable items to the tailgate to prevent food waste and mishandling leftovers.

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Resources

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