Picnic and barbecue season offers lots of opportunities for outdoor fun with family and friends. But these warm weather events also present opportunities for foodborne bacteria to thrive. As food heats up in summer temperatures, bacteria multiply rapidly.

To protect yourself, your family, and friends from foodborne illness during warm-weather months, safe food handling when eating outdoors is critical. Read on for simple food safety guidelines for transporting your food to the picnic site, and preparing and serving it safely once you’ve arrived.

Pack and Transport Food Safely

Keep your food safe: from the refrigerator/freezer — all the way to the picnic table.

- **Keep cold food cold.** Place cold food in a cooler with ice or frozen gel packs. Cold food should be stored at 40 °F or below to prevent bacterial growth. Meat, poultry, and seafood may be packed while still frozen so that they stay colder longer.
- **Organize cooler contents.** Consider packing beverages in one cooler and perishable foods in another. That way, as picnickers open and reopen the beverage cooler to replenish their drinks, the perishable foods won’t be exposed to warm outdoor air temperatures.
- **Keep coolers closed:** Once at the picnic site, limit the number of times the cooler is opened as much as you can. This helps to keep the contents cold longer.
- **Don’t cross-contaminate.** Be sure to keep raw meat, poultry, and seafood securely wrapped. This keeps their juices from contaminating prepared/cooked foods or foods that will be eaten raw, such as fruits and vegetables.
- **Clean your produce.** Rinse fresh fruits and vegetables under running tap water before packing them in the cooler — including those with skins and rinds that are not eaten. Rub firm-skinned fruits and vegetables under running tap water or scrub with a clean vegetable brush while rinsing with running tap water. Dry fruits and vegetables with a clean cloth towel or paper towel. Packaged fruits and vegetables that are labeled “ready-to-eat,” “washed,” or “triple washed” need not be washed.
**Quick Tips for Picnic Site Preparation**

Food safety begins with proper hand cleaning — including in outdoor settings. Before you begin setting out your picnic feast, make sure hands and surfaces are clean.

- **Outdoor Hand Cleaning:** If you don’t have access to running water, use a water jug, some soap, and paper towels. Or, consider using moist disposable towelettes for cleaning your hands.
- **Utensils and Serving Dishes:** Take care to keep all utensils and platters clean when preparing food.

**Follow Safe Grilling Tips**

Grilling and picnicking often go hand-in-hand. And just as with cooking indoors, there are important guidelines that should be followed to ensure that your grilled food reaches the table safely.

- **Marinate safely.** Marinate foods in the refrigerator — never on the kitchen counter or outdoors. In addition, if you plan to use some of the marinade as a sauce on the cooked food, reserve a portion separately before adding the raw meat, poultry, or seafood. Don’t reuse marinade.
- **Cook immediately after “partial cooking.”** Partial cooking before grilling is only safe when the partially cooked food can go on the hot grill immediately, for example at a home with a grill on the patio or deck.
- **Cook food thoroughly.** When it’s time to cook the food, have your food thermometer ready. Always use it to be sure your food is cooked thoroughly. (See Safe Food Temperature Chart)
- **Keep “ready” food hot.** Grilled food can be kept hot until served by moving it to the side of the grill rack, just away from the coals. This keeps it hot but prevents overcooking.
- **Don’t reuse platters or utensils.** Using the same platter or utensils that previously held raw meat, poultry, or seafood allows bacteria from the raw food’s juices to spread to the cooked food. Instead, have a clean platter and utensils ready at grill-side to serve your food.
- **Check for foreign objects in food.** If you clean your grill using a bristle brush, check to make sure that no detached bristles have made their way into grilled food.

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**SAFE COOKING TEMPERATURES**

**as measured with a food thermometer**

<table>
<thead>
<tr>
<th>Category</th>
<th>Internal temperature</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GROUND MEAT &amp; MEAT MIXTURES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beef, Pork, Veal, Lamb</td>
<td>160 °F</td>
<td></td>
</tr>
<tr>
<td>Turkey, Chicken</td>
<td>165 °F</td>
<td></td>
</tr>
<tr>
<td><strong>FRESH BEEF, PORK, VEAL &amp; LAMB</strong></td>
<td>145 °F</td>
<td>with a 3 minute rest time</td>
</tr>
<tr>
<td><strong>POULTRY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chicken &amp; Turkey, Whole</td>
<td>165 °F</td>
<td></td>
</tr>
<tr>
<td>Poultry Parts</td>
<td>165 °F</td>
<td></td>
</tr>
<tr>
<td>Duck &amp; Goose</td>
<td>165 °F</td>
<td></td>
</tr>
<tr>
<td>Stuffing (cooked alone or in bird)</td>
<td>165 °F</td>
<td></td>
</tr>
<tr>
<td><strong>HAM</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh (raw)</td>
<td>160 °F</td>
<td></td>
</tr>
<tr>
<td>Pre-cooked (to reheat)</td>
<td>140 °F</td>
<td></td>
</tr>
<tr>
<td><strong>EGGS &amp; EGG DISHES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eggs</td>
<td>Cook until yolk &amp; white are firm</td>
<td></td>
</tr>
<tr>
<td>Egg Dishes</td>
<td>160 °F</td>
<td></td>
</tr>
<tr>
<td><strong>SEAFOOD</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fin Fish</td>
<td>145 °F</td>
<td>or flesh is opaque and separates easily with fork</td>
</tr>
<tr>
<td>Shrimp, Lobster &amp; Crab</td>
<td></td>
<td>Flesh pearly &amp; opaque</td>
</tr>
<tr>
<td>Clams, Oysters &amp; Mussels</td>
<td></td>
<td>Shells pearly &amp; opaque</td>
</tr>
<tr>
<td>Scallops</td>
<td></td>
<td>Milky white or opaque &amp; firm</td>
</tr>
<tr>
<td><strong>LEFTOVERS &amp; CASSEROLES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>165 °F</td>
<td></td>
</tr>
</tbody>
</table>
Prevent “Cross-Contamination” When Serving

Never reuse a plate or utensils that previously held raw meat, poultry, or seafood for serving — unless they’ve been washed first in hot, soapy water. Otherwise, you can spread bacteria from the raw juices to your cooked or ready-to-eat food. This is particularly important to remember when serving cooked foods from the grill.

Serving Picnic Food

Keep Cold Foods Cold and Hot Foods Hot

Keeping food at proper temperatures — indoor and out — is critical in preventing the growth of foodborne bacteria. The key is to never let your picnic food remain in the “Danger Zone” — between 40 °F and 140 °F — for more than 2 hours, or 1 hour if outdoor temperatures are above 90 °F. This is when bacteria in food can multiply rapidly, and lead to foodborne illness.

Instead, follow these simple rules for keeping cold foods cold and hot foods hot.

Cold Food

- Cold perishable food should be kept in the cooler at 40 °F or below until serving time.
- Once you’ve served it, it should not sit out for longer than 2 hours, or 1 hour if the outdoor temperature is above 90 °F. If it does — discard it.
- Foods like chicken salad and desserts in individual serving dishes can be placed directly on ice, or in a shallow container set in a deep pan filled with ice. Drain off water as ice melts and replace ice frequently.

Hot Food

- Hot food should be kept hot, at or above 140 °F.
- Wrap it well and place it in an insulated container until serving.
- Just as with cold food — these foods should not sit out for more than 2 hours, or 1 hour in temperatures above 90 °F. If food is left out longer, throw it away to be safe.
Safe Food Handling: Four Simple Steps

**CLEAN**
Wash hands and surfaces often

- Wash your hands with warm water and soap for at least 20 seconds before and after handling food and after using the bathroom, changing diapers, and handling pets.
- Wash your cutting boards, dishes, utensils, and counter tops with hot soapy water after preparing each food item.
- Consider using paper towels to clean up kitchen surfaces. If you use cloth towels, launder them often in the hot cycle.
- Rinse fresh fruits and vegetables under running tap water, including those with skins and rinds that are not eaten. Scrub firm produce with a clean produce brush.
- With canned goods, remember to clean lids before opening.

**SEPARATE**
Separate raw meats from other foods

- Separate raw meat, poultry, seafood, and eggs from other foods in your grocery shopping cart, grocery bags, and refrigerator.
- Use one cutting board for fresh produce and a separate one for raw meat, poultry, and seafood.
- Never place cooked food on a plate that previously held raw meat, poultry, seafood, or eggs unless the plate has been washed in hot, soapy water.
- Don’t reuse marinades used on raw foods unless you bring them to a boil first.

**COOK**
Cook to the right temperature

- Color and texture are unreliable indicators of safety. Using a food thermometer is the only way to ensure the safety of meat, poultry, seafood, and egg products for all cooking methods. These foods must be cooked to a safe minimum internal temperature to destroy any harmful bacteria.
- Cook eggs until the yolk and white are firm. Only use recipes in which eggs are cooked or heated thoroughly.
- When cooking in a microwave oven, cover food, stir, and rotate for even cooking. If there is no turntable, rotate the dish by hand once or twice during cooking. Always allow standing time, which completes the cooking, before checking the internal temperature with a food thermometer.
- Bring sauces, soups and gravy to a boil when reheating.

**CHILL**
Refrigerate foods promptly

- Use an appliance thermometer to be sure the temperature is consistently 40° F or below and the freezer temperature is 0° F or below.
- Refrigerate or freeze meat, poultry, eggs, seafood, and other perishables within 2 hours of cooking or purchasing. Refrigerate within 1 hour if the temperature outside is above 90° F.
- Never thaw food at room temperature, such as on the counter top. There are three safe ways to defrost food: in the refrigerator, in cold water, and in the microwave. Food thawed in cold water or in the microwave should be cooked immediately.
- Always marinate food in the refrigerator.
- Divide large amounts of leftovers into shallow containers for quicker cooling in the refrigerator.

For more information, contact the U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition’s Food and Cosmetic Information Center at 1-888-SAFEFOOD (toll free), Monday through Friday 10 AM to 4 PM ET (except Thursdays from 12:30 PM to 1:30 PM ET and Federal holidays). Or, visit the FDA website at http://www.fda.gov/educationresourcelibrary