



Fact Sheet-08-06

Safety First in Outdoor Food Preparation

Stanley T. Omaye, Professor & Extension Specialist*

Summertime is when bacteria flourish, especially when you have surroundings of **heat, humidity, and lack of cleanliness**. As the temperature increases during the summer, the number of people who get sick from food poisoning (*i.e.*, foodborne illness) goes up. Whether it is a family picnic, potluck buffet, barbecue, or campout, you need to protect yourself, your family, and friends.

One-third of those who prepared meals reported unsafe food hygiene practices. For example, they did not wash hands or take precautions to prevent cross-contamination from raw meat (Center for Food Safety and Applied Nutrition, CFSAN). The following information summarizes what you as an individual can do to reduce the risk of food poisoning.

Food Transportation

Keep cold foods cold and hot foods hot! Foodborne illness is caused by bacteria that can multiply rapidly in food when it is held in the temperature danger zone between 41 F to 140 F.

- Hot foods should be held at 140 F or warmer. Use chafing dishes, slow cookers and warming trays for hot foods at a buffet. For traveling, pack hot foods in thermos jugs or insulated containers.
- Keep foods cold by nesting dishes in bowls of ice. For traveling, place cold

foods in a cooler with ice or frozen gel packs. Keep the cooler in the air-conditioned passenger section of your car, not in the hot trunk.

Separate foods Meat, poultry and seafood should be packed while they are still frozen, so that they stay cold longer. Keep meat, poultry and seafood away from cooked foods or foods eaten raw, such as vegetables and fruits.

Bacteria grow well in food when the temperature warms up; therefore, it is important during camp-outs to keep food as cold as possible.

Wash hands often

Always wash your hands before and after handling food. When possible, use hot, soapy water and scrub well. Alternatively, disposable washcloths (towelettes) and paper towels should be used.

Cooking utensils and plates

Keep all utensils, plates, and food preparation areas clean when preparing food. Always serve food on clean plates. Avoid cross-contamination between raw foods and cooked foods.



Cook safely

Cook fresh and frozen raw meat, poultry and fish to proper temperatures to kill harmful bacteria (see cooking chart). Use a meat thermometer to be sure that correct internal temperatures are reached. It is crucial that hamburger is cooked to at least 160 F. For an extra measure of safety, consider using hamburger that has been treated with irradiation (a method of sterilizing and disinfesting foods). To reduce grilling time, you can partially cook food in the microwave, oven, or stove, immediately before putting the food on the hot grill.

Store marinade for food below 40 F. Do not reuse marinade that has been used for raw meat, poultry, or seafood.

Tip: Cancer-causing compounds can be created when foods are cooked at high heats. You can reduce your risk of creating cancer-causing compounds by removing fat which prevents fatty flare-ups; by cutting off charred portions of meat; precooking meat in the microwave immediately before placing on the grill (discard microwave juices, as they contain cancer-causing compounds); and, by moving coals to the sides to prevent fat and juices from dripping on them.

Two-hour rule

Do not leave food out for more than 2 hours. Discard food left out more than 2 hours. Cool leftovers (divide into smaller portion and place in tubs of cold water) as soon as possible and reheat to 165 F before re-serving. If the outside temperature is above 90 F, consider cooling sooner, no longer than 1 hour.



Internal temperature (food thermometer)	
Beef, veal, and lamb	145 F
Ground pork and beef	160 F
Poultry breasts	165 F
Whole poultry (temperature of thigh)	165 F
Fin fish	140 F
Shrimp, lobster and crab	Meat should be shining and not clear
Clams, oysters, and mussel	Until the shells are open

References:

FDA. 2007. Outdoor eating food safety trips. <http://www.cfsan.fda.gov/~dms/fssumme2.html>

Brennand, C. 2002. Keeping food cool during camping. Utah State University Extension, FN/FS-250.11.

Williams, P., Albertson, M., and Perfetto, B. 2004. On the home front: Barbecue safely this summer. Utah State University Extension, Salt Lake County, Vol., 04, #04.



Contact: S. T. Omaye at:

*Department of Nutrition, Mail Stop 142
University of Nevada, Reno 89557
Tel: 775-784-6447
Fax: 775-784-6440
Email: omaye@unr.edu