The sun is shining, the Kansas pastures are greening up, and the grill is begging us with its own rendition of "Come On Baby Light My Fire!" Before you crank up the grill, consider what you need to do to enjoy safely grilled foods!

The Center for Disease Control estimates that 48 million people in the US become ill from harmful bacteria in food <u>annually</u>; of these, about 3,000 die. The risk for getting a food borne illness is everywhere. However, the grilling environment may increase the risk if you aren't intentional about preventing this type of illness. Plan out the steps you will take to keep your grilled food safe and tasty:

Step 1: Shopping and Storage

Take a cooler with you as you leave the house. Put a few frozen cooler packs in it, if possible. If you are stopping after work, take your cooler into your work place, if possible, to keep it from heating up in your car during the day. Make the cooler and freezer sections your last stop while shopping. It is important that cold foods remain cold from the time they leave the case until you are able to put them in the refrigerator or freezer at home. Keep the raw meat and poultry separate from other foods in your shopping cart. Ask the store clerk to double wrap your meat in plastic bags.

Plan to drive home right after your shopping trip. To keep foods safe, you should refrigerate perishable foods within 2 hours of their purchase. When it's hot outside (above 90°F) limit that to one hour.

Make sure meat or poultry is completely thawed before your put it on the grill so it cooks more evenly. Thaw frozen meat in the refrigerator, which may take a day or so, depending on the size of the cut. You can use the microwave thawing method if you are grilling the food immediately. This method, although safe, may impact the product quality. Hamburger, for example, will often lose its ability to shape into solid patties and tend to fall apart during the grilling process.

Step 2: Preparations for Grilling

It is not uncommon for grill recipes to require that you marinate the meat or poultry for several hours or days before cooking. Marinating adds flavor and/or tenderness to your product, but you need to be cautious with the process. Never marinate meat or poultry on the counter. Bacteria grow faster in warmer temperatures so a refrigerated environment is where margination should occur.

Keep the food cold until you are ready to use it. Only take out the meat or poultry that will immediately be placed on the grill. If you are grilling for a large group of people, just remember that you need to always **keep hot foods hot and cold foods cold.**

Step 3: Cooking and Serving

No matter how long you have been cooking, you cannot determine if a food is fully cooked just by looking at it. The only sure way to know if food is cooked correctly is to measure the internal temperature with a food thermometer. Read the manufacturer's instructions before you use a food thermometer. Many are not designed to remain in the food inside your grill. Follow the recipe's recommended cooking time, but confirm the doneness toward the end of that time by inserting a

food thermometer in the thickest part of the food. Avoid touching bone, fat or gristle and they can skew your thermometer's reading. If possible, check the temperature in several places to ensure the food is evenly heated. Wash your thermometer with hot water and soap after each use. Bacteria can grow on the stem of the thermometer if it is not cleaned properly. See the insert for cooking temperatures for various cuts of meat and poultry provided by the USDA Food Safety and Inspection Service.

Product	Minimum Internal Temperature
All Poultry (breasts, whole bird, legs, thighs, and wings, ground poultry, and stuffing)	165 °F (73.9 °C)
Eggs	160 °F (71.1 °C)
Fish & Shellfish	145 °F (62.8 °C)
Leftovers	165 °F (73.9 °C)
Casseroles	165 °F (73.9 °C)

Product	Minimum Internal Temperature & Rest Time
Beef, Pork, Veal & Lamb Steaks, chops, roasts	145 °F (62.8 °C) and allow to rest for at least 3 minutes
Ground meats	160 °F (71.1 °C)
Ham, fresh or smoked (uncooked)	145 °F (62.8 °C) and allow to rest for at least 3 min.
Fully Cooked Ham (to reheat)	Reheat cooked hams packaged in USDA-inspected plants to 140 °F (60 °C); all others to 165 °F (73.9 °C).

Once the food is cooked you need to keep it hot until you serve it. The window of time to have the food away from heat should not exceed 2 hours from the time it comes off the grill to the time it is finished being consumed.

Step 4: Storing Leftovers

Before you begin handling leftovers, wash your hands thoroughly with soap and water. Wrap or cover the leftovers so that their surface or juices cannot mix with another food. Keep all different types of meat products separated. Store food in a refrigerator within 2 hours of being removed from the grill. Discard any food that was left out more than two hours (one hour in hot weather.)

Grilling is a great way to prepare meat and poultry for your family and friends, but you need take the necessary steps to keep it safe. For additional information on food safety and safe outdoor grilling, contact me at the Geary County Extension Office at 238-4161. Until next time, keep living resourcefully!