

QUICK TIPS FOR HOLIDAY FOOD SAFETY

Dr. Paul Priyesh Vijayakumar, Ph.D., Dr. Melissa Newman, Ph.D., and Dr. Gregg Rentfrow, Ph.D.

Food is an essential part of our lives, particularly during the holiday season, when families get together and enjoy different varieties of food prepared at home. During this time it is also very important to keep food safety in mind, specifically while serving the immunocompromised individuals including: young children, the elderly, pregnant women, and people fighting illnesses.

SHOPPING:

Practicing food safety while cooking is important, but taking it a step ahead, following food safety practices should start while shopping. This is where you first come in contact with the food items you are going to bring to your home.

Remember to sanitize your hands and the shopping cart before you begin shopping (Picture 1). We cannot be sure if the cart is clean, or if a previous shopper managed his/her food items in the cart in an appropriate manner. It is likely that some food containers could have had a leak. It is always a good practice to use plastic bags provided at the store to prevent contents from dripping on other food (Picture 2).



Picture 1: Sanitizing the cart before proceeding to shop





Picture 2: Bagging raw poultry/meat at the store

Segregating raw meat products from RTE (Ready-To-Eat) products is the key to preventing cross contamination. This can be done by compartmentalizing your cart. All fresh produce, dairy, and other RTE foods can be stored within the cart whereas raw meat items can be stored at the bottom of the cart.

It is preferred that you shop for non-food items first and then shop for food items beginning with those that don't need temperature control. For example, first find spices and bread, then locate frozen food items, followed by refrigerated. This will prevent the cold items from temperature abuse while you finish shopping.

CLOSELY INSPECT CANS AND PACKAGES:

Make sure to closely inspect the food items for any tampering or damage to the seal. Canned food items are typically pasteurized to make them shelf stable. If you observe any bulging cans on the store shelf, inform a store employee or the manager and make sure you do not purchase the product or touch or play with it. A bulging or swollen can could mean the can was not sufficiently processed and the contents could be contaminated. Avoid purchasing if the package is damaged.

TIME AND TEMPERATURE:

Depending on the outside temperature, place your food items either in the trunk or the passenger compartment. If it is cold outside ($<40^{0}$ F), the trunk would not be a bad idea, but if it is warm or hot outside ($>40^{0}$ F) it is better if you place the food items in the passenger compartment. Inside the car, ensure that raw meat is separated from the remaining items, nothing breaks while you load, and there is no leaks and spills. When you shop for groceries or food items, it is best to plan to get back home as soon as possible to store the food items, specifically the perishables, in the refrigerator.

It is recommended that perishable food not be kept at room temperature for more than 2 hours (1 hour when the outside temperature is above 90^{0} F). The Danger Zone for ideal microbial growth is between 40^{0} F to 140^{0} F. You should use an ice chest if you know you are not going to get back home with the groceries within 2 hours (1 hour when the outside temperature is above 90^{0} F).

REFRIGERATOR:

Plan your refrigerator storage. Meat, poultry, or fish that you wish to store in the refrigerator compartment and not the freezer should be stored at the lowest level possible to avoid drips, leaks, and spills. Fresh produce should be stored at the mid-level, and cooked food items at the top level. This prevents juice/liquid from raw, uncooked food from contaminating the cooked or ready to eat food items. You could also use leak proof trays to keep food items at any level you like, still making sure that you follow the separation rule (raw meat away from cooked meat and RTE foods).

PERSONAL HYGIENE AND CLEANLINESS:

Personal hygiene and cleanliness are of foremost importance when you are cooking. Remember to thoroughly wash your hands with soap (for at least 20 seconds) regularly before, during, and after handling food (for example, during the preparation process, such as after cutting up raw meat and before preparing the greens salad). Practice using a separate cutting board for raw meat items and fresh produce.

THAWING:

If you plan to thaw frozen meat prior to cooking, you could move it from the freezer to the refrigerator around 24 hours prior to cooking (time dependent on meat quantity). If not, thaw the meat in its packaging or a leak proof bag in a bowl of cold tap water, preferably placing the bowl in the kitchen sink to avoid spilling water on the kitchen counter top (Picture 3).



Picture 3: Thawing meat in the kitchen sink, in its packaging in a vessel containing cold tap water

COOK TEMPERATURES:

Be sure to follow the cooking instructions on the food package. When cooking meat and poultry products, always use a food thermometer to ensure that sufficient internal temperatures are reached. This is the only indicator that a product is cooked thoroughly.

Product	Internal Temperature (⁰ F)
Beef, Pork, Veal & Lamb (steak, chops and roasts)	145
Ground Meats	160
Pork	160
All Poultry	165
Eggs	160
Fish and Shell Fish	145
Casseroles	165

Table 1: USDA – FSIS safe minimum internal temperature chart

LEFTOVERS:

After a meal, all leftovers should be immediately stored in air tight containers in the refrigerator or freezer. Leftover food should be re-heated to at least 165°F before consumption, and left over liquid products (gravies, sauces, and, soups) should be brought to a rolling boil before serving.

REFERENCES:

The (Food and Drug Administration) FDA, Consumer Health Information - www.fda.gov/consumer

The United States Department of Agriculture (USDA) Food Safety Inspection Services (FSIS) www.fsis.usda.gov