



# Furthering Families

## *Meat safety: Preventing Foodborne Illness*

Food safety has become a high profile issue despite the fact that the U.S. has the safest food supply in the world. Media attention focusing on livestock diseases (Bovine tuberculosis) and outbreaks of foodborne illness (*E. coli*, *Salmonella* and *Listeria*) has raised consumer concern. Building consumer confidence in the safety of food products is increasingly important to everyone in food production.

The Michigan Department of Agriculture (MDA) and the U.S. Department of Agriculture (USDA) work cooperatively to inspect all Michigan livestock intended for consumption before and after processing to assure that the meat is disease-free before being sent to the consumer market. Experts at Michigan State University are confident that the meat inspection system will continue to protect consumers from contracting TB from improperly processed foods. Inspection and processing of all meat offered for sale to consumers must follow stringent requirements that guard the safety of the food supply.

Bovine TB is primarily spread through respiration (the air one breathes) so the bacterium is, generally, found in the lungs. The TB bacterium is rarely found in meat (muscle tissue). As a precaution, however, all meats should be thoroughly cooked to an internal temperature of 165 degrees F for 15 seconds to kill bacteria, especially hunter-harvested deer from areas in the state with confirmed cases of bovine TB. If the lungs, ribcage or internal organs from a wild deer look abnormal (multiple tan or yellow lumps), the meat should not be eaten, and the deer must be taken to a Michigan Department of Natural Resources (DNR) check station.

### **What role do consumers play in meat safety?**

Consumers play an important role in food safety. Once meat leaves the retail counter it is very important that consumers use safe handling practices. Safe handling practices include using proper handwashing methods and washing utensils properly. Temperature is very important in reducing the risk of foodborne illness. Proper refrigeration and using a meat thermometer to cook meat to the correct temperature are crucial.

## Safety-First Practices

- Place meat in a plastic bag before placing in your grocery cart to keep meat juices from contaminating other foods, surfaces, and your hands.
- Make sure the temperature in your refrigerator is 40°F or below and below 0°F in the freezer. Use a refrigerator/freezer thermometer to check the temperature. Harmful bacteria grow most rapidly in the “Danger Zone”—between 40 and 140°F—so it’s important to keep food out of this temperature range. Refrigerate or freeze perishables, prepared food, and leftovers within two hours of purchase or preparation, or within one hour if the temperature is above 90°F.
- Prevent cross-contamination by washing hands in hot soapy water before and after handling raw meat products. Also, wash any surfaces and utensil that have been in contact with raw meat products. An example of cross-contamination is cutting raw meat, poultry, or fish on a cutting board and then slicing salad vegetables on the same cutting board without washing the cutting board between uses. Cleanliness is a major factor in preventing foodborne illness.
- Use a meat thermometer to tell if meat has reached a temperature high enough to destroy harmful microorganisms. Always using a meat thermometer when cooking meat products is an important food safety practice.
- Cook all ground meat products thoroughly to 165°F. Do not use the color of meat to verify doneness. Never eat raw or rare ground meat. Bacteria from the grinding processing are mixed throughout the ground beef, so it is critical to make sure the meat is cooked completely. Cooking ground meat products to 165°F will destroy *E. coli* 0157.H7 bacteria, a common source of food poisoning.
- Thaw meat in the refrigerator. Frozen meat should never be thawed at room temperature. For quick thawing, submerge meat in cold water in airtight packaging, or thaw meat in the microwave if you will be cooking it immediately.

Proper handling of meat will protect you and your family from foodborne illness. The U.S. has the safest food supply in the world, but consumers must be responsible for safe food handling practices in the home.

Compiled by **Cindy Brock**, Extension Educator, Michigan State University Extension

Reviewed by **Alden Booren**, Ph.D., Professor, Michigan State University, Food Science and Human Nutrition

**MICHIGAN STATE  
UNIVERSITY  
EXTENSION**

*MSU is an affirmative-action, equal-opportunity institution. Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, marital status, or family status.*

