



Prepare Meat and Poultry Safely to Prevent Contamination

An English translation of a Spanish publication of the Texas Agricultural Extension Service, Texas A&M University, entitled "Prepare Carne y Aves de Manera Segura Para Prevenir la Contaminación." Translated by permission.

Basic Care

Meat and poultry products are well known for their high protein content and their nutritional benefits, but it is the responsibility of the individual to serve these foods in a safe manner in order to prevent food poisoning.

Maintain the area where you prepare the raw and cooked meat as clean as possible. Wash your hands frequently as you prepare the food. The importance of these simple rules cannot be exaggerated. In addition, do everything possible to prevent the contamination or recontamination of cooked foods with bacteria from raw meat.

If a cutting board, tray, knife, or whatever other utensil or container has come into contact with raw meat, wash it before using it again. Wash these utensils in hot water with disinfectant soap before using them with cooked meats. Using different utensils for raw and cooked foods is recommended.

Cooking meat completely kills the bacteria present in raw meat. Nevertheless, disease-causing bacteria that may be present on your hands, a utensil or a container will multiply rapidly in whatever cooked meat that they touch.

Something About Microbiology

In order to understand the dangers, we need to learn a little about basic microbiology. All animal food products contain bacteria from two general sources.

Naturally occurring bacteria are those organisms that are present in animals and birds as well as the environment where they are raised, including pine straw, hay or powder in a chicken coop.

Introduced bacteria are those that come from a source other than the animal, bird or their environment. In the majority of cases, introduced bacteria originate from people, equipment, water or other materials used in the processing of the animal after it leaves the farm. People have bacteria in their bodies just as they do in their hands and hair.

The typical processing of poultry reduces naturally occurring bacteria by 95 percent through scalding and freezing. If adequate cleaning and disinfecting procedures are followed, the introduction of harmful bacteria should be minimal and not harmful to humans. After processing, the meat and poultry may still contain some bacteria that can be classified as pathogenic.



Some Bacteria Are Unpleasant But Not Harmful

Some bacteria that change the color or odor of foods are unpleasant but not harmful. These bacteria can reproduce easily even when the meat is refrigerated. They are responsible for the off-color or smell in foods but usually do not cause illness. Smell the poultry products near the opening of the cavity--if it has a sweet smell, either light or strong, it is a sign that the level of bacteria has increased. The food is about to spoil, usually within one day. The odors associated with spoiled food are the result of the decomposition of carbohydrates, fats and proteins because of the increase of bacteria. It is time to throw the food away.

Food Poisoning

Toxic bacteria form only a small percentage of all the bacteria that contribute to the deterioration of foods. The common bacteria that cause food poisoning (Staphylococcus, Salmonella, Clostridium, E.coli 0157:H7 and Campylobacter are the most common) reproduce very well at or near the normal body temperatures of animals and birds (105° F) and that of humans (98° F) Salmonella causes illness when it reproduces in the body and is considered an infection.

Staphylococcus and Clostridium produce toxins in food before it is eaten. Even heat may not destroy these bacteria. Because many of these bacteria do not contribute to the deterioration of foods, they do not produce any odor or color and the food may pass as fresh.

Foods that are high in protein represent the greatest risk. Bacteria are living organisms and have four basic needs that control their growth:

(1) available nutrients

(2) adequate moisture

(3) adequate temperature

(4) enough time

The consumer can control the temperature and the time.

Raw and cooked meat and poultry should be refrigerated at 40° F or below. Before serving, the cooked meat and poultry should be at least 150° F or more. The internal temperature of ground beef should be at least 160° F or well done. The time that high protein foods spend between 40° and 150° F should be kept to a minimum.

Simply...Safety

Consumers can make sure that meat and poultry is not contaminated if you:

- maintain the food preparation areas clean
- cook the food completely to kill the bacteria
- refrigerate the food as soon as possible after cooking
- avoid contamination between cooked foods and bacteria from raw meat and poultry.



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