

# Jerky Safety

Jerky is meat or poultry that has been dried until most of the moisture is removed. Because of its very low moisture content, it is shelf stable and can be stored without refrigeration. The drying process leaves a nutrient dense, portable and light-weight snack. But drying meat or poultry at home requires proper safe food preparations. USDA recommends that all meat be pre-heated before the drying process to ensure that any bacteria present is destroyed. A pound of meat or poultry weighs about 4 ounces after being made into jerky.

Drying is the most common method of food preservation. By removing moisture, bacteria, fungi or naturally occurring enzymes found in raw food cannot cause tissue damage or spoilage.

A warm oven or a food dehydrator should be used to dehydrate meat or poultry. USDA currently recommends heating meat to 160°F and poultry to 165°F before the dehydrating process begins to make jerky. Research indicates pre-cooking meat to the correct temperature prior to drying, minimizes safety concerns related to foodborne illness-causing bacteria, such as *Salmonella* or *Escherichia coli* 0157:H7.

A dehydrator gives you more temperature control than the use of an oven. After heating the meat to 160°F or poultry to 165°F, the dehydrator temperature should remain between 130° and 140°F during the drying process. This temperature is fast enough to dry food before it spoils by removing enough water so that bacteria are unable to grow in the finished jerky. The dehydrator instructions should indicate that your equipment reaches the appropriate temperature during the drying process. Because sun or shade drying occurs in open air without the addition of heat, these methods are not suitable for the drying of meat or poultry for jerky.

Safe handling and preparation methods must always be used when preparing any type of jerky.

- Always wash hands with soap and water before and after working with meat products.
- Use clean equipment and utensils.
- Keep meat and poultry refrigerated at 40°F or below and use or freeze ground beef and poultry within 2 days; use or freeze whole red meats within 3 to 5 days.
- Defrost meat or poultry in the refrigerator.
- Marinades can be used to tenderize and flavor jerky before dehydrating it. Marinating foods should be done in the refrigerator. Do not re-use the marinade.
- Use a meat thermometer for accuracy to pre-cook meat to 160°F and poultry to 165°F before dehydrating it.
- Use a food dehydrator that will maintain a temperature of at least 130° to 140°F throughout the meat drying process.

Commercially made jerky is monitored in federally inspected plants by inspectors of the U.S. Department of Agriculture's Food Safety and Inspection Service. Dried commercial products may be cured or uncured, smoked or unsmoked and air or oven dried. Commercially packaged jerky should be stored in a cool, dry place for up to 12 months. Home-dried jerky should be consumed within 1 to 2 months.

## References

- USDA, FSIS. *Jerky and Food Safety*, 2016.

*Sandra Bastin, Ph.D., R.D., L.D.*  
*Extension Specialist for Food & Nutrition*  
*Annhall Norris, Extension Associate*

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