

Guidelines for Making Safe Jerky at Home

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Jerky is an enjoyable, nutritious and convenient product you can make at home. In past years, the heating recommendations for jerky have been quite general. With the current emphasis on food safety and preventing foodborne illness, experiments have now been conducted with home-style dehydrators to determine how much heating is necessary to destroy disease-causing bacteria, should they be present in raw meat.

This fact sheet explains how to use the results of these tests as you dry jerky.

Although dried meat has a good safety record, homemade jerky has occasionally caused foodborne illness. Raw meat of any kind may contain disease-causing bacteria. Follow these guidelines to reduce risk and improve safety of jerky products. (See *Wisconsin's Wild Game* page 12 for how to prepare meat.)

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- 1. Use only lean meats in excellent condition.**
 - 2. Maintain meats under refrigeration or keep frozen until use.**
If marinating meat in seasonings, store in the refrigerator.
 - 3. Keep raw meats and their juices away from other foods.** Always wash your cutting board, utensils, counter, sink and hands with hot, soapy water after contact with raw meat. To sanitize after washing, rinse knives, cutting boards and counter tops with a mixture of 1 teaspoon bleach in a quart of water.
 - 4. Determine the true drying temperature of the dehydrator or oven when it is operating empty.** Do not rely only on the dehydrator's temperature settings. Place the metal stem of a dial thermometer between dehydrator trays, or drill a hole through the side of a tray to create an opening. Insert the thermometer stem in the drilled hole so you can read the dial outside the dehydrator.
 - 5. Follow the minimum time-temperature guidelines on the back.** These guidelines have been demonstrated to effectively kill *Escherichia coli* bacteria (*E. coli* 0157:H7) in lean ground and formed jerky, and should also be adequate for whole meat strips up to ¼ inch thick.

Drying temperature	Minimum drying time	
125° F	10 hours	
135° F	8 hours	
145° F	7 hours	Optimum *
155° F	4 hours	Optimum *

* While all the above time-temperature combinations effectively kill microbes, use dehydrator temperatures of 145° F or higher if possible.

The above times refer to the total heating and drying time for the process, beginning when you place the raw meat in the dehydrator. It is normal for the dehydrator temperature to remain below the target level for several hours as drying begins. These guidelines take into account the usual temperature lag that takes place in the dehydrator during the early stages of drying, as the meat first warms up and moisture is removed.

- 6. Prevent cross-contamination — keep dried jerky separate from raw meat.** After drying is complete, handle and store jerky in a sanitary manner to maintain its safety. Store in an airtight plastic food bag or jar with a tight-fitting lid. You can store properly dried jerky at room temperature for 1 or 2 months. But to ensure safety and protect flavor, keep jerky in the refrigerator or freezer. Label and date packages.

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