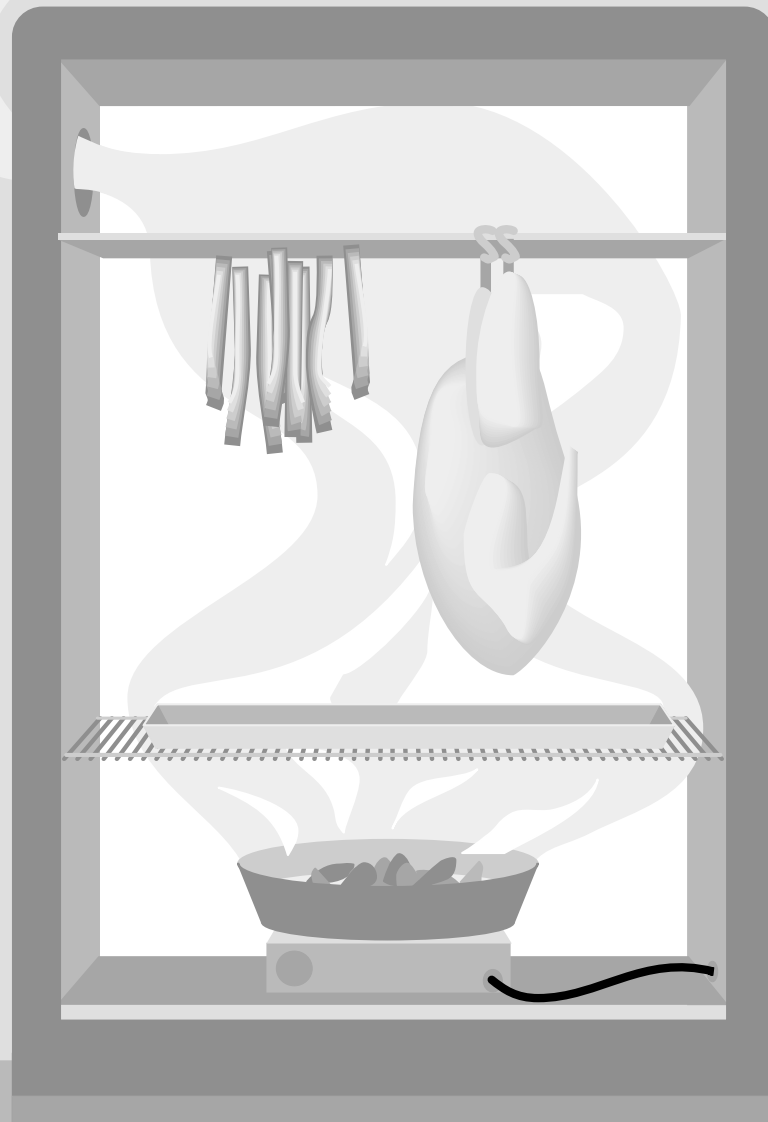


# CURING AND SMOKING POULTRY MEAT

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Cured and smoked poultry meats have become popular. This is especially true for smoked turkey at Thanksgiving and Christmas. Curing and smoking imparts a unique, delicate flavor and pink color to poultry meat and increases the refrigerator storage life. When preparing smoked poultry products most people use mild cures (relatively low salt) to maintain the poultry flavor. Smoked poultry, like ham, can be served hot or cold for sandwiches, salads, or party snacks. You can use the bones to replace ham bones for flavoring soups or bean dishes.

## Preparations

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Your first step in the curing and smoking process is to obtain the following materials and ingredients:

- 1) Poultry meat
- 2) Non-iodized salt
- 3) Sugar and/or brown sugar
- 4) Cure (containing 6.25% sodium nitrite)\*
- 5) Other seasonings according to your recipe
- 6) Food grade plastic or stainless steel tub
- 7) Smoker\*\*
- 8) Wood chips or liquid smoke if you choose not to use natural smoke
- 9) Cheesecloth or stockinette for hanging in the smokehouse
- 10) Airtight packaging for storage

\*This is a *commercial* cure containing 6.25% sodium nitrite. Sometimes you can buy *commercial* cures, such as Modern Cure™ or Prague Powder™, from small commercial sausage makers. Many grocery stores or locker plants carry *complete* cures, such as Morton's Tender Quick Curing Salt™. Follow instructions on the container if you use *complete* cures because they often replace most of the salt and sugar called for in the recipe.

Nitrite gives poultry meat an attractive light pink color after heating. Smoked poultry which does not contain cure will be brownish-white, not pink, after processing.

\*\*You can make or buy several types of smokehouses and smokers. An old refrigerator with a vent cut in the top and an electric hot plate with variable heat settings in the bottom works very well. Keep the vent covered except when reducing the temperature in the smoker. Remove all plastic shelf support, line the refrigerator with boards and secure shelving to the boards. Drill a hole for the hot plate's electric cord. Put an iron container filled with hardwood twigs, shavings, or sawdust on the hot plate. Put poultry on the racks or hang from overhead racks. Place a metal or aluminum foil baffle over the wood chips to protect them from meat drippings. This will prevent wood chips from catching fire and prevent smoke produced by drippings. *Safety Precaution:* For the safety of small children, remove the door's locking device and install a simple latch that must be manually locked.

You can also use portable electric smokers. These smokers usually come complete with a pan for wood chips or sawdust and an electric heating unit.

## Selecting Poultry Meat

Cured and smoked poultry meat is quite susceptible to rancidity. Therefore, it is very important to select poultry that is as clean and fresh as possible. Farm dressed poultry works well if proper dressing procedures are followed. Chill the birds immediately and cure and smoke within 1–2 days (the sooner the better). Many commercially frozen birds also work very well. Birds with the neck skin removed can be smoked, but it is preferable to fold the flaps of neck skin over the back to reduce drying during smoking.

# Curing

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## Preparing Brine

Many different curing formulations are available. The author has successfully used the following recipe:

(This recipe is based on an 11.8% total pickup of brine. After injecting brine and soaking in the brine, birds should weigh 11.8% more than before injection and soaking.)

5 gals.	Water
5 lbs.	Non-iodized salt
3 lbs.	Sugar (brown sugar can be substituted for all or part of this amount)
1 1/8 lbs. (1 lb., 2 oz.)	Cure (containing 6.25% sodium nitrite)

### *Optional Ingredients\**

4 Tbsps. (1 oz. or 28 g)	Black pepper
1 cup (1 oz. or 28 g)	Crumpled bay leaves
1.3 lbs. (1 lb. 5 ozs.)	Sodium tripolyphosphate**
.21 lb. (3 1/3 ozs. or 95 g)	Sodium erythorbate or sodium ascorbate†

\*Other flavorings often are added to turkey, including monosodium glutamate, spices, or spice extractives. Commonly used spices include cloves, cinnamon, oil of celery, and oil of black pepper. Add these ingredients according to personal preference.

\*\*Phosphate will help hold moisture in the meat and slow development of rancidity. Phosphate can sometimes be obtained from a local locker plant.

†Helps with proper color development and stability.

## Follow these procedures when making the brine:

1. Use cold water (36°–40°F).
2. If you use phosphate, dissolve it in 3 gallons of the water. Stir it vigorously until it is all dissolved. (Some types of phosphate go into solution slowly.)
3. Dissolve the sodium erythorbate (if used) in the water.
4. Add salt, cure, sugar, and remaining water and stir until all ingredients are dissolved and the pickle solution is clear.
5. Add additional flavorings and mix well.

## Cover Brine Curing Procedure

Soaking time depends on the size of the bird. For example, keep a 2-pound broiler in the brine for 2 to 3 days. Cure larger birds—one day per pound of carcass.

1. Put birds in the curing vat and hold them under the brine with a clean board, stone, or container of water. Be sure the brine fills the body cavity.
2. Keep the brine temperature between 32° and 40°F during the curing process.
3. At least once per week, remove birds from the vat, remix the brine and repack the birds to allow uniform contact of the brine with all parts of each carcass.

When the curing time is complete, remove excess salt by washing birds inside and out with fresh, cold tap water and soak them overnight in cold tap water. Remove birds from the water and allow them to drip dry in a cool place for about 1/2 hour before smoking.

## **Stitch Curing Procedure**

For more rapid curing of large birds, you can inject the brine using a large syringe with a 12-gauge needle. Inject small amounts of brine into numerous locations to insure uniform distribution into all parts of the carcass. Try to inject into several locations through each hole you make in the skin. Numerous holes in the skin will detract from the appearance of your finished bird. Inject the bird with the pickle solution described above until the carcass weighs 11.8% more than it did before injection. Then place the bird in the remainder of the pickle solution for 2 to 3 days. To remove excess salt, rinse the bird in cold tap water for 1 hour and allow to drip dry (about 1/2 hour).

## **Smoking and Cooking**

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### **Liquid Smoke Procedure**

You can brush birds with liquid smoke, put into an oven at 300° to 325°F and cook to an internal temperature of 165°F. However, many people prefer the natural smoking procedure described below.

### **Natural Smoking**

The natural smoking procedure yields a product that is fully cooked and ready-to-eat. During the smoking process, maintain 80–90% humidity in the smokehouse by dampening the sawdust or wood chips used for the smoke or by placing a pan of water near the heat source and adding water as it evaporates. This will help prevent weight loss and drying of the product. Put birds in stockinettes or cheesecloth, and hang in the smokehouse with the tail end up with no birds touching each other. You can use various types of hardwood, including apple, hickory, alder, and maple. Keep the sawdust or chips moist to prevent flare-ups and to provide humidity.

Use a smokehouse temperature of 170°F for 6–10 hours (depending on amount of smoke desired) until the skin turns the desired light brown color. Then raise the temperature of the smokehouse to 185°–200°F and cook the meat until it reaches an internal temperature of 165°F. Insert a meat thermometer into the thickest part of the breast to determine the internal temperature. This entire smoking and cooking process will take from 16–24 hours for turkeys. During the final cooking phase, some people wrap the birds in foil to prevent excessive drying. The meat can be eaten immediately or it can be stored and eaten cold or properly reheated.

## **Storage**

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You should have an excellent product when you remove your smoked poultry from the smokehouse or oven. However, improper storage can ruin both the flavor and safety of your masterpiece. Put cured and smoked poultry, like all cured meats, in a container that will minimize exposure to air. Cured meats, especially cured poultry meats, are very susceptible to rancidity.

Cured and smoked poultry requires refrigeration at 40°F or below and will keep for 2 to 3 weeks at those temperatures. If longer storage is necessary, properly packaged cured and smoked poultry can be frozen at 0°F for up to one year. Use a plastic bag for refrigerator storage. For long-term frozen storage, use a moisture-vapor-proof bag.

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