

Stock Basics

The French word for stock is fond, meaning bottom, ground, or base. Since the 16th century, the quality of sauces and soups has depended upon the stocks that are used as their base. Learning the skill of making stocks will allow you to build sauces and soups on a strong foundation.

A **stock** is the liquid that forms the foundation of sauces and soups. Simmering various combinations of bones, vegetables, and herbs extracts their flavors to create this foundation.

Elements of a Stock

A stock is composed of four ingredients: the nourishing element, mirepoix, bouquet garni, and liquid. These ingredients are usually mixed in the following proportions to make most stocks:

5 parts nourishing element

1 part mirepoix

bouquet garni

10 parts liquid

Nourishing Element

The most important ingredient in a stock is the nourishing element. A nourishing element includes any one or a combination of the following:

Fresh bones (beef, lamb, chicken, fish, veal, or game)

Meat trimmings

Fish trimmings for fish stock

Vegetables for vegetable stock

The **nourishing element** provides flavor, nutrients, and color. Some nourishing elements may bring other benefits to the stock, such as bones, which add gelatin.

Mirepoix

Mirepoix is a mix of coarsely chopped vegetables that is used in a stock to add flavor, nutrients, and color. The ingredients vary with each recipe, but usually include two parts onions, one part celery, and one part carrots.

Bouquet Garni

French for garnished bouquet, a bouquet garni is a combination of fresh herbs and vegetables, such as carrots, leeks, celery, thyme, and parsley stems, that are tied in a bundle with butcher's twine. This bundle is added directly to the liquid and is allowed to simmer. The bouquet garni is removed before the stock is used in other foods.

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Liquid

Liquid, almost always in the form of water, makes up the largest portion of stock. The liquid used to make stock should be cold when you begin to cook. This brings out the maximum flavor of the ingredients and prevents the stock from turning cloudy. When all the ingredients are prepared, the ratio of liquid to the nourishing element should be 2 to 1.

Types of Stocks

White, brown, fish, and vegetable stocks are the main types of stocks.

White Stock

A white stock is made from chicken, beef, veal, or fish bones simmered with vegetables.

White stock is generally colorless while it is cooking. To keep the stock as clear as possible, you may blanch the bones before adding them. However, some chefs think doing so causes flavor to be lost.

Brown Stock

Brown stock is made from either beef, veal, chicken, or game. It gets its color from roasting the ingredients without water, in a hot oven. The browned bones, mirepoix, and tomatoes or tomato product combine to give a brown stock its color. This mixture is then transferred to a stockpot and simmered along with water and herbs.

HOW

Prepare White Stock

- 1 Cut bones into 3- to 4-inch pieces. Chicken and fish bones do not need to be cut.
- 2 Rinse the bones in cold water to remove any impurities. You can blanch the bones, if desired. Place the bones in a stockpot.
- 3 Add cold water until the bones are completely covered. Cold water dissolves impurities ((jɪmˈpyʊr-ə-tēs) and blood in the bones it covers. These impurities will clump and rise to the surface when the water heats, where they can be skimmed off the top. Using hot water will cause the impurities to clump too rapidly. This prevents them from rising to the top and results in a cloudy stock.



- 4 Bring water to a boil. Then, reduce it to a simmer to slowly release the full flavor of the ingredients.
- 5 To keep the stock clear, use a skimmer or ladle to remove any impurities and fat from the surface. Skim as needed.



- 6 Add the mirepoix. Boiling makes the stock cloudy, so keep the water at a simmer.



- 7 Make sure liquid is still completely covering the bones. Bones will not release their flavor unless they are under water, and will darken if exposed to air.



- 8 For the best flavor, simmer stock for the recommended amount of time:
 - Fish bones: 30-45 minutes
 - Chicken bones: 3-4 hours
 - Beef or veal bones: 6-8 hours
- 9 Skim all of the impurities and fat from the stock.
- 10 Strain the stock through a china cap.



- 11 Cool the stock quickly, as discussed later in this section.

Fish Stock

Fish stock is made by slowly cooking the bones of lean fish or shellfish. The procedure to make fish stock is the same as to make a white stock, although the cooking time for fish stock is shorter. If lemon juice or other acids are added to the water, the result is a flavorful liquid called a fumet. A fumet is more strongly flavored than regular fish stock since it is reduced by 50%.

Vegetable Stock

The basic ingredients of a vegetable stock are vegetables, herbs, spices, and water. Proportions and kinds of vegetables will vary with different recipes. Vegetable stock needs to be simmered only 30 to 45 minutes. If you want a particular flavor of vegetable stock, use more of that vegetable. Then, add neutral-tasting vegetables such as celery and onions to round out the flavor. All-purpose vegetable stock does not include strongly flavored vegetables, such as artichokes, Brussels sprouts, or cauliflower. These vegetables tend to overpower other flavors. Some dark-green, leafy vegetables, such as spinach, develop an unpleasant odor when they are cooked for too long.

Glazes

A glaze is a stock that is reduced and concentrated. This results in a flavorful, thick, and syrupy liquid that turns solid when it is refrigerated. Glazes are created through reduction. Reduction is the process of evaporating part of a stock's water through simmering or boiling. Small amounts of glaze can be used to flavor sauces, vegetables, meat, poultry, and fish.

Prepare a Glaze

- 1** Place a large quantity of stock in a heavy pan.
- 2** Bring the stock to a simmer.
- 3** Skim the surface as needed.
- 4** Clean the sides of the pan with a moistened, natural-bristle brush as the stock reduces and becomes syrupy.
- 5** Transfer the stock to a smaller pan when reduced by half to two-thirds.
- 6** Continue to reduce until the stock coats a spoon.
- 7** Strain the stock through a chinois, or china cap, and pour into containers.
- 8** Follow recommended procedures for cooling stock; then label, date, and refrigerate or freeze the containers.



Cooling and Storing Stocks

Always cool stock before you store it. There are three ways to cool stock. You can use Rapi-Kool®, which is a brand of container that can be filled with water and then frozen. This frozen container is then put into the stock to speed up the cooling process. Another method is to pour the stock into a container that is less than 4 inches deep and place it in the refrigerator. Stock should never be cooled in the refrigerator. A refrigerator is not meant to cool hot foods. The stock will cool too slowly in a refrigerator. This could allow bacteria to grow, making the stock unsafe to eat.

When the stock is cool, transfer it to a plastic container with a tight-fitting lid, and label and date it.

Stock that has not been cooled correctly can spoil within six to eight hours. Discard stock if you are unsure of its freshness.

Remove the layer of fat before you use the stock.

Like other foods, stock should be reheated properly to help avoid foodborne illness.

Reheat stock to a temperature of 165°F (74°C) for at least 15 seconds. Hold stock at a temperature of 135°F (57°C) or above when it is to be used for service.