



Soaring Crane Natural Health Center

209 W Cedar Ave. Palmer, AK 99645. 907.745.3999. soaringcraneclinic.com

Bone Broth

Bone Broth, made from the bones of animals, has been consumed as a source of nourishment for humankind throughout the ages. It is a traditional remedy across cultures for the sick and weak. A classic folk treatment for colds and flu, it has also been used historically for ailments that affect connective tissues such as the gastrointestinal tract, the joints, the skin, the lungs, the muscles and the blood. Broth is a valuable food and a valuable medicine.

Nutritional Contents

Broth will contain the ingredients that are in bone and cartilage. It is the valuable nutrients from the matrixes of bone and cartilage, which create the substance called broth. These nutrients include:

protein	calcium	phosphorus
magnesium	sulfur	fluoride
sodium	potassium	chondroitin sulfate
keratin sulfate	hyaluronic acid	glycine
proline	hydroxyproline	
lysine	hydroxylysine	

Minerals

Minerals have three major functions in the body. They provide a structural base for connective tissue like bone. They create electrical potentials allowing for conduction of nerve signals and movement across cell membranes. They act as catalysts for enzymes in physiologic processes.

Minerals are essential to life but they are not easy to digest. In the stomach, the presence of hydrochloric acid is necessary to physically break down our food, but also to extract elemental minerals from the food that we've eaten. A similar reaction takes place in the making of broth. An acid is necessary to remove the minerals from the bone. This is the purpose of using vinegar (acetic acid) when making broth.

Deficiencies of minerals can be acquired, similar to vitamin deficiencies. Generally there are two ways this can happen, lack of intake in the diet, or lack of absorption in the intestines. Broth can be an excellent remedy for both of these causes of mineral deficiency because it provides easily absorbed extracted minerals, plus promotes healing of the intestinal tract. Unlike vitamins, minerals do not have defining deficiency diseases, but rather a collection of associated deficiency signs, symptoms and diseases. Interestingly, many of the deficiency symptoms of minerals are mood and behavior disturbances. This offers a scientific explanation for broth's ability to soothe and stabilize. It is reasonable to assume that previous to the development of pharmaceutical mineral supplements, bone broth was an important supply of minerals, especially in the winter when fresh fruit and vegetables are less available, and warm food is preferred.



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Method for Making Bone Broth

Stock needs to be prepared in advance to mealtime. It needs to boil for hours, and the longer it simmers, the better it gets. An easy solution is to routinely put meat scraps into a pot, instead of the garbage can. Broth can just as easily be extracted from a single chicken breast bone as it can from a whole chicken, and it need not be raw. Broth can be allowed to simmer on lowest heat for a day or two. The greatest amount of work is at the end, when it must be strained, cooled, and put into containers; still not very troublesome. It can be kept in the refrigerator for about five days, or frozen for months. With stock on hand, homemade soup can be ready for dinner within 20 minutes.

Basic Broth Making and Usage

Ingredients

1. Bones—from poultry, fish, shellfish, beef, lamb*

- * cooked remnants of a previous meal, with or without skin and meat
- * raw bones, with or without skin and meat**
- * use a whole carcass or just parts (good choices include feet, ribs, necks and knuckles)
- * don't forget shellfish shells, whole fish carcasses (with heads) or small dried shrimp

The Best Recipe cookbook suggest that chicken bones have a higher concentration of red marrow, and that this considerably enhances flavor.

2. Water—start with cold water

- * enough to just cover the bones
- * or 2 cups water per 1 pound bones

3. Vinegar—apple cider, red or white wine, rice, balsamic

- * a splash
- * 2 tablespoons per 1 quart water or 2 pounds bones
- * lemon juice may be substituted for vinegar (citric acid instead of acetic acid)

4. Vegetables (optional)—peelings and scraps like ends, tops and skins or entire vegetable

- * celery, carrots, onions, garlic and parsley are the most traditionally used, but any will do
- * if added towards the end of cooking, mineral content will be higher



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Bone Broth Recipe

Combine bones, water and vinegar in a pot,

Let stand for 30 minutes to 1 hour,

Bring to a simmer, remove any scum that has risen to the top, reduce heat and simmer (6–48 hrs for chicken, 12–72 hrs for beef).

To reduce cooking time, you may smash or cut bones into small pieces first.

If desired, add vegetables in last 1/2 hour of cooking (or at any point as convenience dictates).

Strain through a colander or sieve, lined with cheesecloth for a clearer broth.

Discard the bones. If uncooked meat was used to start with, reserve the meat for soup or salads.

An easy way to cook broth is to use a crockpot on low setting. After putting the ingredients into the pot and turning it on, you can just walk away. If you forget to skim the impurities off, it's ok, it just tastes better if you do.

If you wish to remove the fat for use in gravy, use a gravy separator while the broth is warm, or skim the fat off the top once refrigerated.

Cold broth will gel when sufficient gelatin is present. Broth may be frozen for months or kept in the refrigerator for about 5 days.



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Usage

1. Soup—Make soup by adding vegetables, beans, grains or meat to broth. Briefly cook vegetables and meat with butter or oil in the bottom of a stockpot (5 minutes). Add broth, and grains or previously soaked beans if you wish. Simmer until everything is cooked through. Time will vary with the ingredients used, but count on a minimum of 20 minutes. Season at the end of cooking with salt and pepper and spices of your choice. Consult cookbooks for specific recipe ideas.
 2. Cooking Liquid—Use broth in place of water to cook rice, beans or other grains. Bring broth to a boil, add grains or beans, reduce heat and cook for instructed time. Or you can simmer vegetables or meat in a little seasoned broth until cooked. Remove to a plate, thicken broth with cornstarch, arrowroot or flour, then pour over vegetables and meat.
 3. Gravy—Make gravy to put on vegetables, meat or biscuits. Put fat (removed from the broth, or use butter) in a skillet. Add any type of flour, 1 tablespoon at a time, and stir constantly until browned. Whisk in broth and cook till thickened. Add salt and pepper to taste.
 4. Tea—Don't forget you can just add salt and sip broth like tea. This is especially nice in the winter or if you're feeling sick. Since broth is simultaneously energizing and calming, it can take the place of morning coffee, afternoon tea, or evening nightcap. Try it in a thermos and sip throughout the day. Of course, the most traditional use for seasoned broth is as a first course, to enhance the digestion of any meal to come.
- *Pork bones are not generally recommended for prepared ahead broth, but are cooked into stew and soup recipes, and boiled pig skin is traditionally consumed for many of the same purposes as broth.
- **Raw bones and meat may be browned first in the oven, or in the bottom of the stockpot to enhance flavor and color.

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Traditional Bone Broth in Modern Health and Disease



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