GET CREATIVE WITH BONE BROTH
How to use nourishing broth for soups, sauces and stews

By Sally Fallon Morell for Wise Traditions 2022
STOCK OR BROTH?

STOCK: Traditionally “stock” is cooked longer, with more bones; more collagen rich. Better for consume and reduction sauces

BROTH: Traditionally “broth” is cooked less time, with fewer bones and more meat and vegetables; less gelatinous. Better for soups and stews.

MEAT STOCK: Term used by Natasha Campbell-McBride for a short-cooked “broth” made with meat. For patients who can’t tolerate a lot of glutamic acid.

CONFUSION!!

Today we will be making several types of stock, which I’ll be calling broth!
STRUCTURE OF MUSCLE

- Tightly bound proteins
- Gentle cooking “denatures” by loosening enzyme receptors, makes meat more digestible
- Can’t be restructured after cooking
COLLAGEN STRUCTURE

- Tightly bound
- Heat relaxes—broth is melted collagen
- Molecules return to original structure (gel) when cooled
- Heat does not “denature” collagen molecules, only relaxes them.
<table>
<thead>
<tr>
<th>Essential Amino Acids</th>
<th>Non-Essential Amino Acids</th>
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<tbody>
<tr>
<td>Histidine</td>
<td>Alanine</td>
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<tr>
<td>Isoleucine*</td>
<td>Arginine**</td>
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<tr>
<td>Leucine*</td>
<td>Asparagine</td>
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<tr>
<td>Lysine</td>
<td>Aspartic acid</td>
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<tr>
<td>Methionine</td>
<td>Cysteine**</td>
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<tr>
<td>Phenylalanine</td>
<td>Glutamic acid</td>
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<td>Threonine</td>
<td>Glutamine**</td>
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<td>Tryptophan</td>
<td>Glycine**</td>
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<tr>
<td>Valine*</td>
<td>Proline**</td>
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<td></td>
<td>Selenocysteine**</td>
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<td></td>
<td>Serine</td>
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<td></td>
<td>Taurine**</td>
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*Branched-chain amino acid

**Conditionally essential amino acid
MAIN AMINO ACIDS IN COLLAGEN
Most are “Conditionally Essential”

PROLINE**: Helps build healthy cartilage and collagen; balances excess methionine in a meat-heavy diet

GLYCINE**: Needed for hemoglobin production; energy production in our cells; production of bile salts (for digestion of fats); production of glutathione (for detoxification such as mercury, lead, cadmium and other toxins); blood sugar regulation; wound healing; dopamine regulation. More needed during pregnancy.

GLUTAMINE**: Helps heal the gut; immune cell production; liver health and detoxification; helpful for addiction problems; brain food.

ALANINE: Roles in liver function, blood sugar regulation, energy production. Athletes need more.
BENEFITS OF BROTH

SUPPORTS GROWTH and HEALING

MAINTAINS HEALTHY COLLAGEN and CARTILEGE

HEALTHY BONES, LIGAMENTS AND SKIN

SUPPORTS GOOD DIGESTION

DETOXIFYING

SUPPORTS HEALTHY MOOD
COLLAGEN, the MOST COMMON PROTEIN in the BODY

- 30% of protein in the body is collagen
- 99% of the eye is pure collagen
- 70% of protein mass in skin is collagen
- 30–60% of skeletal protein mass is collagen
TYPES OF COLLAGEN

**TYPE 1**
tendons, ligaments, bones, organs, teeth, and skin

**TYPE 2**
cartilage and gut lining

**TYPE 3**
muscles, organs, and arteries
More than 1/3 of bone is comprised of collagen. This collagen in bone is highly mineralized, yet it retains moisture, flexibility, and elasticity giving strength to bone.
THE ALTERNATIVE TO BROTH: MSG

Products Containing MSG
# Hidden Sources of MSG:

**FOOD ADDITIVES** that contain MSG (monosodium glutamate)

<table>
<thead>
<tr>
<th>ALWAYS</th>
<th>FREQUENTLY</th>
<th>MAYBE</th>
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<tr>
<td>Monosodium Glutamate</td>
<td>Malt Extract</td>
<td>Carrageenan</td>
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<tr>
<td>Hydrolyzed Vegetable Protein</td>
<td>Malt Flavoring</td>
<td>Enzymes</td>
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<td>Bouillon</td>
<td>Soy Protein Concentrate</td>
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<td>Hydrolyzed Plant Protein</td>
<td>Broth</td>
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<td>Natural Beef Or Chicken Flavoring</td>
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<td>Hydrolyzed Oat Flour</td>
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<tr>
<td>Corn Oil</td>
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"Proud men have hidden a snare for me; they have spread out the cords of their net and have set traps for me along my path.”

Psalm 140:5
MSG SIDE EFFECTS

According to the FDA, MSG side effects include:
- Numbness
- Burning sensation
- Headache
- Facial pressure
- Chest pain
- Drowsiness
- Nausea
- Rapid heartbeat
- Difficulty breathing for asthmatics
- Weakness
- Tingling

According to INDEPENDENT studies MSG side effects include:

Cardiac: Arrhythmia, atrial fibrillation, tachycardia, rapid heartbeat, palpitations, slow heartbeat, angina, extreme rise or drop in blood pressure

Circulatory: Swelling

Gastrointestinal: Diarrhea, nausea/vomiting, stomach cramps, rectal bleeding, bloating

Muscular: Flu-like achiness, joint pain, stiffness

Neurological: Depression, mood swings, rage reactions, migraine headaches, dizziness, light-headedness, loss of balance, disorientation, mental confusion, anxiety, panic attacks, hyperactivity, behavioral problems in kids

PLUS 36 ADDITIONAL SYMPTOMS
Is MSG Making you FAT?

“Studies on animals showed that glutamate (MSG) constricts blood vessels because it acts as a calcium channel OPENER, and it also increased appetite in healthy animals by 40% by acting on the hypothalamus.”

HealthyHolisticLiving.com
WHY MAKE BROTH?

• Provide good health for you and your family

• Gain the reputation as an excellent gourmet cook!

“Indeed, stock is everything in cooking; without it, nothing can be done.”

August Escoffier
LET’S GET STARTED

1. Chicken Stock/Broth
2. Veal Stock/Broth
3. Beef Stock/Broth
4. Fish Stock/Broth

THE CHALLENGE:
Be Inventive—Don’t Use Recipes
Avoid Measuring!
CHICKEN BROTH

INGREDIENTS

• 2–3 chicken carcasses (including necks)
• Chicken feet and heads
• 1 red onion, cut in half
• about 1/3 cup vinegar
• bunch fresh parsley
• Small handful peppercorns
• 2–3 bay leaves
• good quality water
To get a good gel... fill the pot with bones!
12 hours later....

FOR STORAGE
Paper
Plastic
Glass
Whichever you use, always fill with broth well chilled!
Fill with water plus about 1/3 cup vinegar for the SECOND COOKING
Remove Bones using a slotted spoon.

Strain the broth into a large soup pot.
SOUTHWEST CHICKEN SOUP

• Broth from second cooking
• Chopped chicken from second cooking
• About 6 cups cooked black beans
• 4–6 ears corn, cut off the cob
• 2 large cans crushed tomatoes
• Red wine
• Chile powder to taste
• Unrefined salt to taste
SERVE WITH. . .

- *Diced avocado*
- *Tortilla chips fried in lard*
- *Grated cheese*
BASIC ROAST CHICKEN

• Butterfly bird (use scissors to cut along the back bone)
• Pull bird open

RECOMMENDED: Rub with combination of sea salt and maple sugar, keep in fridge for 12–24 hours.
• Place chicken over chopped onions in a stainless steel pan.
• Brush with melted butter, lard or bacon fat.
• Bake at 400 degrees for about 45 minutes, until the skin is well browned.
• Lower head to 225 degrees and bake another 45 minutes.
BASIC SAUCE INGREDIENTS

• Homemade broth (beef for beef, chicken for chicken, etc.)
• Wine and/or brandy (red for beef, white for chicken)
• Heavy cream or crème fraiche

BASIC SAUCE METHOD

• Deglaze pan drippings with wine and/or brandy
• Add broth
• Stir in cream
• Boil down until thick
• Strain (if necessary)
SOUTHWEST CHICKEN WITH SUMMER VEGETABLES

• 1 brined chicken (rub with mixture of salt and maple sugar, leave in fridge overnight)
• Peppers, corn, onion

• Grease a stainless steel baking pan.
• Set vegetables in pan and chicken over vegetables
• Brush chicken with melted butter, lard or bacon fat
• Make a roux with chili powder in the drippings

• Add red wine

• Add chicken broth and little maple syrup
CHILI CHICKEN

• Cut brined chicken into pieces.
• Place in a stainless steel pan
• Brush with lard; sprinkle with chili powder
• Bake at 400 degrees for 45 minutes, then at 250 degrees for 30 minutes
• Deglaze pan with red wine
• Add chicken broth and more chili powder if desired
• Strain sauce and reduce
CREAM SOUPS

• Calming brain foods.
• Glycine and glutamine in broth plus tryptophan from cream, a great combination to help you sleep.

BASIC RECIPE

• Chop root vegetables (onions, carrots, etc.) and “sweat” till soft in butter or lard
• Add broth and optional wine
• Add potatoes and other vegetables (such as zucchini, squash, etc.), along with seasonings
• Simmer until vegetables are soft
• Blend with a handheld blender
• Add cream and sea salt to taste
CREAM OF LEEK SOUP

Leeks
Potatoes
Zucchini
Butter
Chicken Broth
White Wine
Crème Fraîche
Pepper Corns
Unrefined Salt to Taste
• Cut ends off leeks
• Remove outer leaves
• Slit lengthwise
• Wash under cold water
• Chop at 1-inch intervals

• “Sweat” (cook at very low temperature) in butter for a couple of hours until leeks are soft.
• When leeks are soft, add wine and chicken broth.
• Peel and chop potatoes and add to pot.
• Bring to a simmer.
• Cook, covered, until potatoes are soft.
• Add chopped zucchini.
• Simmer until soft.
• Blend with handheld blender.
• Add cream or crème fraîche and blend until smooth.
• Soup will be very thick.
• Store as a thick soup and thin after thawing.
• To serve, thin with water or chicken stock.
• Season to taste with unrefined salt.

GARNISH
• Left over bacon, cut small
• Sourdough bread, cut small
• Bake until crispy
VEAL STOCK AND VEAL STEW

• Place bones in greased backing pans
• Dribble with melted bacon fat or lard
• Bake at 400 degrees until well browned
• Place bones in stew pot or crock pot.
• Deglaze baking pans with red wine and/or brandy
- Add deglazing liquid to pot
- Add 1-2 red onions cut in half
- Add peppercorns and bay leaves
• Fill pot with good quality water
• Heat over medium heat
• Skim any scum that comes to the top
• Reduce heat to simmer
• Simmer several hours or overnight
• Remove bones with slotted spoon
• Strain stock into Pyrex measuring pitchers
FOR SECOND COOKING

• Return bones and seasonings to the pot
• Add vinegar and fill with water
• Simmer several hours or overnight
• Strain broth and reserve
• Remove meat from bones, chop meat and use in soup, hash, enchiladas, tacos, etc.
- Chill first cooking stock in fridge
- Scrape off fat
- Should be well gelled!
- Reserve in small containers in the freezer
VEAL STEW

• Cut veal into pieces
• Marinate in lemon juice several hours or overnight (in fridge)
• Dry stew pieces very well
• Dredge in flour plus salt and pepper
• Place on greased baking pans
• Dribble with melted lard, bacon grease or butter
Transfer stew pieces to an enameled cast iron cooking pot
• Deglaze pans with red wine and/or brandy
• Transfer deglazing liquid to the stew pot
• Add enough good water to cover the pieces
Bake for several hours at 250 degrees, with lid askew
• Use a portion of the stew base to make stew by adding vegetables and cooking until tender.
• Add cream, grated rind of lemon or orange, salt and pepper as desired
• Reserve rest of stew base in freezer for later use.
OXTAIL FOR BROTH AND SOUP

• Place oxtail pieces on a greased baking pan
• Brush with tomato paste
• Deglaze pan with red wine and/or brandy
• Add oxtail pieces, deglazing liquid and seasonings to slow cooker pot
• Seasonings: parsley, bay leaf, 2 onions cut in half, peppercorns
• Add vinegar and fill with water to cover bones
Cook overnight on low setting
• Ladle broth through a strainer into a Pyrex measuring pitcher
• Refrigerate until gelled
Carefully remove fat and reserve for cooking potatoes!
Fill small containers and reserve in freezer
Reduction sauce made in pan drippings with red wine, brandy and oxtail stock.
RACK OF LAMB
Reduction sauce made in pan drippings with brandy and oxtail stock
SECOND COOKING for BEEF-BARLEY SOUP

- Return oxtail and all seasonings to the pot
- Add vinegar (about 1/3 cup) and water to cover
- Cook on low setting overnight
- Remove bones and strain broth into a soup pot
MEANWHILE, PREPARE BARLEY

- Toast $\frac{1}{2} - \frac{3}{4}$ cup pearled barley in the oven
- Soak in water plus a spoonful of whey or vinegar for about 7 hours
• Remove meat from bones.
• Chop a portion of the meat finely to use in beef-barley soup
• Reserve the rest in the freezer for hash, soup, tacos, enchiladas, etc.
• Drain barley and add to broth
• Chop a portion of the meat finely and add to broth
• Serve soup with sourdough toast
FISH STOCK for FISH FILETS WITH REDUCTION CREAM SAUCE

2-3 “round fish”
2 onions
dry white wine
bouquet garni (thyme, bay leaves, parsley, tied together)

butter
2 carrots
peppercorns
• Peel and chop carrots and onions
• “Sweat” in butter for several hours
• To remove filets from carcass, use a very sharp, flexible fish fileting knife
• (Or have the fish seller remove the bones for you!)
HOW TO FILET A ROUND FISH

https://search.aol.com/aol/video;_ylt=AwrFcJskeVBJiUcgPTOFpCWVH;_ylu=Y29sbwNiZjEEdG9zAzEEdnRpeZAMEc2VjA3BpdnM-?q=filleting%20fish&s_it=searchtabs&v_t=wscreen50-bb#id=10&vid=50dcb168c44f0f4410e78f92e063a95c&action=view
Keep filets cold while you make the stock
• Simmer stock for 20-30 minutes
• Remove carcasses and vegetables with a slotted spoon
• Ladle stock through a very fine strainer (even lined with cheese cloth)
Reserve about half the stock for other dishes
• Place filets skin side down in a buttered Pyrex dish.
• Sprinkle with a small amount of salt
• Cover and bake at about 300 degrees until tender
• Place stock in a shallow pan
• Add 1 cup crème fraîche
• Boil down, stirring frequently, until bubbles start to pop and the sauce coats a wooden spoon
THINGS TO DO WITH FISH BROTH

Fish soup using fish picked off the bones, tomato paste, crème fraîche, finely chopped celery, red peppers and onion

Crab soup using crushed tomatoes

Clarified fish broth with miso

Coconut curry fish soup

Shrimp and grits
YOLANDA’S SHRIMP AND GRITS

1 cup corn meal
2 cups fish broth or broth plus water
4 tablespoons butter
1 cup cream or crème fraiche
1 cup grated cheese
unrefined salt to taste

2 pounds wild shrimp, removed from shell
4 strips bacon
1 onion, peeled and chopped
2 red peppers, seeded and sliced thin
About 1 cup fish broth
3-4 tablespoons tomato paste
1 clove garlic, peeled and crushed
3-4 scallions, sliced thin
unrefined salt and pepper to taste

Serves 4
FOR THE GRITS:
Slowly add corn meal to boiling stock, stirring constantly. Gradually whisk in the butter, then add the cream. Fold in the cheese and season to taste.

FOR THE SHRIMP:
Cut bacon into small pieces and cook in a skillet. Remove bacon with a slotted spoon and set aside. Saute the onions and peppers in the bacon grease until soft. Push aside and saute the shrimp in the bacon grease.

Add the fish broth, tomato paste and garlic and boil down to desired consistency. Season to taste.

Divide the grits into 4 bowls and place shrimp mixture over the grits. Sprinkle with bacon pieces and chopped scallions.
Happy Cooking!

NourishingTraditions.com/Resources