Soup is for More Than the Soul

By Jenna Volpe, RD, LDN

Fall and winter months in New England are a time for us to bundle up, sip on hot beverages and eat plenty of soothing comfort foods in efforts to stay warm. Some of the most popular cold-weather staples in New England include pumpkin spice lattes, hot cocoa, warm apple cider, or my personal favorite: a timeless bowl of chicken soup. For vegetarians, homemade veggie soups also make a wonderful soul food (please refer to "recipes" section for vegetarian soup ideas).

Soup as Medicine

For many centuries, soup has been given to those with a cold or the flu; it was always believed to have powerful medicinal effects in reducing winter illness. Bone broth has been referred to as "Jewish penicillin" and is a staple for Chinese medicine practitioners. These claims were up for debate until very recently, when research studies concluded that perhaps our ancestors knew exactly what they were doing. From a nutritional standpoint, it turns out that homemade broths and soups are good for a lot more than just the soul!

Immunity

According to Health Navigator New Zealand and a study from 2012, slow-cooked veggies and spices in soups help to break up congestion, ease the flow of nasal secretions, and inhibit inflammatory responses that are related to sore throat (1, 2). Cysteine, an amino acid in chicken, has been shown to thin out mucus lining which reduces symptoms associated with a cold or cough (1).

Digestion

In addition to aiding in relief from cold-weather ailments, bone broth-based soups and stews are often recommended by health practitioners in other countries to help heal the gut, relieve digestive discomfort, reduce allergies or sensitivities, and to help reverse symptoms of arthritis and auto-immune disorders (3, 4, 5). 70% of our immune system is located within the lining of our gut (6), so many of the immune-related benefits of soup can be traced back to the positive impact of homemade bone broth on our digestive health.

Broth made from whole chickens, chicken feet, beef bones (specifically joints), oxtail, or even fish bones is a known dietary source of collagen and gelatin. Homemade bone broth is also rich in the amino acids proline, glycine, glucosamine, and glutamine, in addition to chondroitin sulphates and minerals such as magnesium, phosphorous, silicon, and sulphur (3, 4, 5).

Gelatin

Although gelatin is not a complete protein, it does contain six important amino acids and helps the body to more efficiently utilize proteins from other foods (7). Gelatin has also been found to reduce inflammation and irritation in the digestive lining, including peptic ulcers and some types

of infections (7, 8). More evidence-based research is needed to determine if dietary gelatin or collagen is directly effective in the treatment of arthritis.

Glycine

Glycine is an amino acid which is abundant in collagen and gelatin from the joints of poultry and beef bones (7, 9, 10). Glycine has been shown to enhance digestion and nutrient absorption from food, specifically by stimulating the production of hydrochloric acid in the stomach (7, 9, 10). Research acknowledges that indigestion and acid reflux is most commonly due to a lack of sufficient stomach acid (7, 11). This is because low stomach acid, or *hypochlorhydria*, allows for microbial overgrowth in the esophageal sphincter, stomach, and small intestine (12).

In addition to keeping pathogenic gut microbes at bay, hydrochloric acid plays a significant role in nutritional status: the acidic pH of hydrochloric acid serves as a medium for the digestion and absorption of vitamin B12, vitamin K, folate, iron, calcium, magnesium, zinc, copper, selenium, and proteins (12). As a result, those with hypochlorhydria are more likely to maldigest and/or malabsorb these nutrients.

People at increased risk of developing nutrient deficiencies secondary to hypochlorhydria include (but are not limited to): the elderly, people taking long-term antacid medications, people with eating disorders such as anorexia or bulimia, people with digestive impairment, and people who have had bariatric surgery or a gastrectomy. In these cases, one could be taking in ample amounts of vitamin/mineral supplements and eating what is considered to be a 'balanced diet', but without adequate stomach acid, the body cannot break down and absorb what it needs.

I have heard before that "we are not what we eat; we are what we digest," and this rings very true to me. The benefits of glycine combined with the high bioavailability of nutrients in bone broth make it a favorable supplement choice over synthetic alternatives which, in the absence of adequate stomach acid, would most likely convert to what my former professor calls "expensive urine".

Glutamine

Glutamine is used as a primary source of fuel for our enterocytes, cells that make up our gut lining (10, 13, 14). Intestinal hyperpermeability, or "leaky gut syndrome", is a condition in which the enterocytes are compromised and thus do not fulfill their primary purpose, which is to keep toxins and invaders from entering the bloodstream (15). Recent studies from the American Gastroenterological Association attribute leaky gut syndrome to be associated with a wide array of clinical conditions (15). This implies that patients with a condition that has etiology related to leaky gut syndrome could benefit from regularly drinking homemade broths and soups as part of a treatment plan to help restore the integrity of the gut lining.

Processed Soups

Unfortunately not all soups are created equal, and mainstream soup is certainly not what it used to be. Rarely nowadays is soup prepared from scratch the way our ancestors made it. When I

walk down the aisles of a grocery store, I find rows upon rows of broths and soups which have been sitting in cans and boxes on shelves for months, or even years. These soups are (more often than not) laced with refined salt, monosodium glutamate, fillers, preservatives, and genetically modified ingredients which are counterproductive and potentially harmful to the body.

It blows my mind and breaks my heart to witness my clients and peers shy away from the idea of making broth from scratch in a crock pot, yet they find it completely normal and acceptable to drink animal broth that has been sitting on a shelf for years! These observations shine light on our extreme disconnect from the source of our food.

The Verdict

It is overwhelmingly apparent that homemade bone broth is naturally abundant in bioavailable forms of nutrients and components which stimulate stomach acid production, while providing fuel for the gut and promoting optimal digestion. Bone broth makes a great "functional food," serving as a preventive or medical nutrition therapy tool for improving digestion, immunity, and overall health. I hope to someday see bone broth become a popular staple of the standard American diet.

There is a strong need for further research and cultural shifts towards the regular consumption of traditional, homemade broths and soups. There is no better time than now to take matters into our own hands, choose foods that empower us and start making some delicious soup!

Basic Chicken or Beef Bone Broth Recipe
Source: *Wellness Mama*

Ingredients:

2 to 3 chicken carcasses, OR 2 pounds of grass-fed beef bones; 1 onion (diced), 2 carrots (peeled and chopped), 2 stalks celery (diced), 2 tablespoons apple cider vinegar, 1 tablespoon unrefined sea salt, 1 teaspoon black peppercorns, herbs and spices of your choice (i.e. parsley, bay leaves, etc.)

Directions:

In a large (4 to 5 gallon) crock or stock pot, place all of bones and cover with filtered water. Add apple cider vinegar (to help release nutrients from bones) and let sit for 30 minutes in the cool water. Next, add chopped veggies, salt, pepper and herbs/spices. Bring to a rolling boil, then immediately reduce to simmer. Cover and continue to simmer on low for 24 to 48 hours. Once time has passed, let broth cool and remove all bones.

Optional: strain out vegetables and meat, to eat separately if you would like to use the broth for a soup recipe. Transfer to glass tupperware to minimize exposure to Bisphenol A (BPA). Refrigerate for up to 5 days, or freeze for later use.

Note: When the broth cools in the refrigerator, it should gelatinize. This is an indicator that enough bones were used. If the broth does not gelatinize, more collagen-rich bones should be incorporated next time.

Simple Vegetable Broth Recipe
Source: *Whole Foods Market*

Although vegetable broth does not contain collagen and gelatin like bone broth, the ingredients in this broth still hold many powerful immune-boosting benefits (1). This recipe makes a great alternative to store-bought vegetable broth in terms of health, taste, and overall quality.

Ingredients:

- 2 medium yellow onions, sliced
- 3 medium carrots, peeled and sliced
- 2 stalks celery, sliced
- 3 cloves garlic, halved
- 1 medium potato, cut into 1-inch chunks
- 3 bay leaves
- 2 teaspoons whole black peppercorns
- 4 sprigs parsley
- 1 teaspoon unrefined sea salt

Directions:

Place all ingredients and 1 gallon filtered water in a large pot. Bring to a boil over high heat. Reduce to a simmer and cook 2 to 4 hours, then strain and discard solids.

Optional: Strain once more through a fine mesh sieve. Cool and refrigerate for up to 3 days. Stir before using if broth separates.

Carrot & Ginger Soup Recipe
Source: *Pamela Budner, Shaklee Products Distributor*

Ingredients:

- 6 tablespoons organic/grass-fed butter
- 1 large yellow onion, chopped
- ¼ cup finely chopped fresh ginger root
- 3 cloves garlic, minced
- 7 cups broth of your choice
- 1 cup dry white wine
- 1 ½ pounds carrots, peeled and cut into ½ inch pieces

- 2 tablespoons fresh lemon juice
- Pinch curry powder
- Unrefined sea salt and pepper to taste

Directions:

1. Melt the butter in a large stock pot over medium heat. Add the onion, ginger, and garlic and sauté for 15 to 20 minutes.
2. Add the broth, wine, and carrots. Heat to boiling. Reduce heat and simmer uncovered over medium heat until the carrots are very tender, about 45 minutes.
3. Puree the soup in a blender or food processor. Season with lemon juice, curry powder. And salt and pepper. Sprinkle with garnish of your choice.
   Serve hot or chilled.

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Bio:

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