

# Celebrate Wellness!

## Natural Anti-Inflammatories (Let Thy Food be Thy Medicine)

Hippocrates, the father of modern medicine (ca. 460 BC – ca. 370 BC)<sup>1</sup>, is quoted as saying, “Everyone has a doctor in him or her; we just have to help it in its work. The natural healing force within each one of us is the greatest force in getting well. Our food should be our medicine. Our medicine should be our food.”<sup>2</sup>

A prior installment of *Celebrate Wellness!*<sup>3</sup> reviewed pro- and anti-inflammatory approaches to diet. What natural and/or plant-based substances are safe and effective in combatting inflammation? What are some options with positive cost-benefit ratios for controlling excessive inflammation during acute or chronic episodes?

Boswellia is a plant-based, natural anti-inflammatory substance that is surprisingly effective at inhibiting certain inflammatory pathways. The cyclooxygenase enzyme (COX) has 2 forms, COX-1 and COX-2. The COX-2 version acts at sites of inflammation to convert arachidonic acid to prostaglandin E<sub>2</sub>, a key mediator of inflammation and pain. Synthetic “Cox-2” inhibitors such as Bextra, Celebrex, and Vioxx target the COX-2 enzyme, but they have some fairly spectacular drawbacks including elevated heart attack and stroke risk.<sup>4,5</sup> Boswellia (*Boswellia Serrata*), more commonly known as Frankincense, contains an acid that inhibits an enzyme known as 5-lipoxygenase.<sup>6,7</sup> This in turn decreases leukotriene production, which means down-regulated inflammation, as leukotrienes are inflammatory substances. The research suggests that in appropriate doses, Boswellia has an acceptable risk-benefit ratio.<sup>8</sup>

Another ancient form of anti-inflammatory substance is water. Frozen or cold water, applied externally to an affected area, is a classic way to literally cool an area of inflammation -- without the negative systemic effects of an oral or topical drug. Ask your doctor of chiropractic when to use cold therapy, hot packs, or a combination of each (contrast therapy) -- as well as for guidelines for how long to apply them. Warning: local reflexes and coordination are inhibited following cooling, so limit post-icing injury risk by avoiding strenuous activity for up to 30 minutes after.<sup>9</sup>

Turmeric (*curcuma longa*) is an herb commonly used in Southeast Asian and Indian cuisine. It appears to inhibit Cox-2, as well as the production of inflammatory leukotrienes, and it may be as powerful as certain prescription anti-inflammatory medications.<sup>10,11</sup> Note: turmeric is advised against during pregnancy; as well as in cases of bile duct obstruction, gall stones, stomach ulcers, or hyperacidity.<sup>12</sup>

While you’re touring your kitchen, don’t forget ginger. Ginger root is hypothesized to combat both major inflammatory pathways referenced above; i.e., the prostaglandin (COX) pathway, and the leukotrienes synthesis pathway.<sup>13</sup> With no known negative side effects, ginger is an attractive addition to the next dish you cook up.


The journal *Medical Hypotheses* makes the following statement: “More than 200 potential drugs ranging from non-steroidal anti-inflammatory drugs, corticosteroids, gold salts, disease modifying anti-rheumatic drugs, methotrexate, (and) cyclosporine are being tested (to control inflammation). None of the drugs has been found safe; all are known to produce from mild to serious side-effects.”<sup>14</sup>

Given this state of affairs, it’s no wonder more and more people are turning back to the wisdom of Hippocrates... and to their doctors of chiropractic. Simple, safe, effective ways of caring for your body have stood the test of time. Your doctor of chiropractic will help

keep you focused on your health and your function, not just pain. If the cause of your pain is the nervous system dysfunction, your chiropractor will help to find the cause and help your body lock on to positive patterns. If pain in a body structure (knee, spine, hip, etc.) is the result of structural imbalances, your chiropractor’s job is to untangle the mystery and balance your frame for optimal function. If your pain has a systemic cause, your chiropractor will work with you to help you identify irritating factors, as well as ways to manage your challenges. Most commonly, whenever structural imbalances exist, nervous system mis-patterning also exists. Ask your chiropractor for more information on living well.

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**Natural Anti-Inflammatory Substances:  
Boswellia Extract  
Turmeric  
Ginger  
Frozen or Cold Water**



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If you are interested in living to your full potential -- and to aging gracefully -- ask your chiropractor for guidance.  
*References on back.*

## References:

- 1 <http://en.wikipedia.org/wiki/Hippocrates>
- 2 <http://www.quotationspage.com/quotes/Hippocrates/>
- 3 See Celebrate Wellness!, Vol III, number 6 (Anti-Inflammatory Diet).
- 4 <http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm103420.htm#COX2>
- 5 <http://www.vioxx-celebrex-lawsuit-news.com/html/vioxx01.html>
- 6 Safayhi H, Boden SE, Schweizer S, et al. Concentration-dependent potentiating and inhibitory effects of Boswellia extracts on 5-lipoxygenase product formation in stimulated PMNL. *Planta Med.* Mar 2000;66(2):110-113.
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- 9 McCauley, Comhnall C. Ice Therapy: How Good is the Evidence? *Int J Sports Med* 2001; 22(5): 379-384. DOI: 10.1055/s-2001-15656.
- 10 Arora RB, Kapoor V, Basu N, Jain AP. Anti-inflammatory studies on *Curcuma longa* (turmeric). *Indian J Med Res.* 1971 Aug;59(8):1289-95.
- 11 Lobo R, Prabhu KS, Shirwaikar A, Shirwaikar A. *Curcuma zedoaria* Rosc. (white turmeric): a review of its chemical, pharmacological and ethnomedicinal properties. *J Pharm Pharmacol.* 2009 Jan;61(1):13-21.
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- 13 Srivastava KC, Mustafa T. Ginger (*Zingiber officinale*) in rheumatism and musculoskeletal disorders. *Med Hypotheses* 1992; 39:342-8.
- 14 Ibid.