

## **Nutrition to Soothe the Joints**

By John Maher, DC, DCBCN, BCIM

Osteoarthritis (OA) is the most common form of inflammatory degenerative joint disease and the second most common cause of long-term disability among middle-aged and older adults in the United States.<sup>1</sup> More than 40 percent of arthritis sufferers in the U.S. report using complementary and alternative medicine, including dietary supplements. The use of alternative remedies has increased since the FDA issued health warnings about anti-inflammatory drugs such as Celebrex.<sup>2</sup>

Maintaining healthy joints through proper posture, joint alignment, muscle tone and nutrition is part and parcel of chiropractic wellness care. In addition to structural misalignment, muscle weakness and injury, a number of dietary factors that promote inflammation and oxidative stress are believed to play a role in the development of chronic joint diseases.<sup>3-4</sup> When it comes to nutrition, maintaining healthy joints is a two-edged sword: One should limit dietary habits that promote arthritis and then increase those that maintain healthy joints.

### **Diets That Promote Arthritis**

Diets high in processed foods, sweets, sugars, meats grilled and fried at high temperatures, baked breads, chips, cookies and pastries all promote inflammation, oxidative damage and degeneration via glycation. Glycation is a degenerative aging process of micro-adhesions, called cross linking, that deforms our tissue's protein structure and function. A menu too high in omega-6 fatty acids (soy, safflower, sunflower, corn oils), trans-fats (hydrogenated and partially hydrogenated fats) and saturated fats (non-lean meat, eggs, full-fat dairy) strongly promotes inflammation and subsequent degeneration.<sup>5-7</sup>

Furthermore, diets like the above tend to be too high in calories, upset blood sugar balance and lead to weight gain. Being overweight greatly increases the stress on the low back, hip and knee joints.<sup>8-9</sup>

## **Diets That Promote Healthy Joints**

Conversely, diets high in relatively unprocessed, low-temperature-cooked (even raw) foods rich in omega-3 fatty acids (chia and flaxseed, walnuts, fatty fish, grass fed meats) and high antioxidant foods (fruits, vegetables, beans, herbs, spices and tea) are anti-inflammatory.<sup>10</sup>

There are other nutrients that may promote joint health. Glucosamine and chondroitin are well-known. Gelatin, MSM (a naturally occurring sulfur compound in our diets), vitamin D, folic acid and B12 may play a role as well.<sup>11-13</sup> Even simply enhancing hydration can help back pain!<sup>14</sup>

## **A Joint-Soothing Smoothie**

It is not always easy to make big dietary changes and follow them daily. A quick and easy way to get lots of good antioxidant and anti-inflammatory nutrition without taking more pills is to replace one pro-oxidant, pro-inflammatory snack or meal (usually breakfast) with a smoothie recipe similar to the following:

- 8 ounces (1 cup) ice water or iced green tea
- 1/2 cup frozen berries
- 1/2 cup plain or vanilla low-fat yogurt and/or one scoop whey protein, vanilla
- 1-3 teaspoons fish oil\* and/or 1-3 teaspoons flaxseed, ground
- 1-3 tsp. plain gelatin and / or 1 tsp. MSM powder
- Vitamin D drops, emulsified, 400-800 IU
- Optional: Stevia to sweeten to taste

\*Some fish oil formulas include vitamin D. Emulsified oils will blend more easily.

Blend water, vitamin D and fish oil first, then blend in the other ingredients. Adjust the recipe to suit your particular taste. Serve cold and enjoy daily. Most middle-aged and older individuals will notice a difference in their joints within eight weeks.

The green tea and berries mix supplies high-antioxidant plant nutrients (phytonutrients). The gelatin and MSM provide sulfur and amino acids that are needed for cartilage and ligament formation.<sup>15</sup> Vitamin D is important for joint health, especially for those at risk for osteoporosis.<sup>16</sup> The fish oil and flaxseed provide the anti-inflammatory omega-3 fatty acids. The yogurt and whey supplies protein to help create a satisfying and balanced meal. Also, they, along with colostrum, the "first milk of mammals," are dairy nutrients that

may have a role in healing GI tracts harmed from too much aspirin or ibuprofen (NSAIDS).<sup>17-19</sup>

Increasing joint-healthy nutrition while decreasing joint-inflaming foods provides more potential benefits than just adding pills to a suboptimal diet. Plus, you have to eat anyway, so there is likely little impact on the food budget. The key is to do a little homework to find the best tasting ingredients and adjust them to taste.

The above-mentioned recipe is only several hundred calories at most, so it can also support weight-loss plans. Indeed, as oxidation, glycation and inflammation are associated with all the common aging diseases, the potential anti-aging benefits are plentiful.

### References

1. Kim LS, Axelrod LJ, Howard P, et al. Efficacy of methylsulfonylmethane (MSM) in osteoarthritis pain of the knee: a pilot clinical trial. *Osteoarthritis Cartilage*, March 2006;14(3):286-94.
2. Funk JL, Frye JB, Oyarzo JN, et al. Efficacy and mechanism of action of turmeric supplements in the treatment of experimental arthritis. *Arthritis Rheum*, Nov 2006;54(11):3452-64.
3. Singh R, Akhtar N, Haqqi TM. Green tea polyphenol epigallocatechi3-gallate: inflammation and arthritis. *Life Sci*, June 2010;86(25-6):907-18.
4. Khanna D, Sethi G, Ahn KS, et al. Natural products as a gold mine for arthritis treatment. *Curr Opin Pharmacol*, June 2007;7(3):344-51.
5. Jegtvig, S. Can the Foods You Eat Make a Difference in Chronic Pain? Antiinflammatory Foods. About.com Guide.
6. Chappell, MM. "High Cooking Temperature and Inflammation: Why You Should Be Wary of Advanced Glycation End Products." The Arthritis Foundation, [www.arthritistoday.org](http://www.arthritistoday.org).
7. Moser B, Hudson BI, Schmidt AM. Soluble RAGE: a hot new biomarker for the hot joint? *Arthritis Res Ther*, 2005;7(4):142-4.
8. Shiri R, Karppinen J, Leino-Arjas P, et al. The association between obesity and low back pain: a meta-analysis. *Am J Epidemiol*, Jan 2010;171(2):135-54.
9. Wang Y, Simpson JA, Wluka AE, et al. Relationship between body adiposity measures and risk of primary knee and hip replacement for osteoarthritis: a prospective cohort study. *Arthritis Res Ther*, 2009;11(2):R31.
10. Challem, J. "The Top 11 Anti-Inflammatory Foods." DLife for Your Diabetes Life. [www.dlife.com/](http://www.dlife.com/)

11. Challem, J. "Vitamin B12, Folic Acid Help in Arthritis." *The Nutrition Reporter*, 1995 (Referencing *J Am Coll Nutr*, Aug 1994;13:351-6.)
  12. Barker, T. "Gelatin Found to Reduce Joint Pain in Athletes." Ball State University News Center, Oct. 26, 1998.
  13. Ding C, Cicuttini F, Parameswaran V, et al. Serum levels of vitamin D, sunlight exposure, and knee cartilage loss in older adults: the Tasmanian older adult cohort study. *Arthritis Rheum*, May 2009;60(5):1381-9.
  14. Lehman, James MD. "Back Pain and Chronic Dehydration: Can Back Pain Be Due to Not Drinking Enough Water?" About.com: Nutrition, Feb. 10, 2009.
  15. Kim LS, Axelrod LJ, Howard P, et al. Efficacy of methylsulfonylmethane (MSM) in osteoarthritis pain of the knee: a pilot clinical trial. *Osteoarthritis Cartilage*, March 2006;14(3):286-94.
  16. Ding C, et al, *op cit*.
  17. Playford RJ, Floyd DN, Macdonald CE, et al. Bovine colostrum is a health food supplement which prevents NSAID induced gut damage. *Gut*, May 1999; 44(5):653-8.
  18. Lipski, E. Leaky Gut Syndrome: The Systemic Consequences of Faulty Digestion. The Environmental Illness Resource. [www.ei-resource.org](http://www.ei-resource.org).
  19. Watanabe T, Nishio H, Tanigawa T, et al. Probiotic lactobacillus casei strain Shirota prevents indomethacin-induced small intestinal injury: involvement of lactic acid. *Am J Physiol Gastrointest Liver Physiol*, July 2009;297:G506-13.
- 

Click [here](#) for more information about John Maher, DC, DCBCN, BCIM.



Page printed from:

[http://www.dynamicchiropractic.com/mpacms/dc/article.php?id=54900&no\\_paginate=true&p\\_friendly=true&no\\_b=true](http://www.dynamicchiropractic.com/mpacms/dc/article.php?id=54900&no_paginate=true&p_friendly=true&no_b=true)