Dynamic Chiropractic

VITAMINS / SUPPLEMENTS

Natural Supplement Alternatives to NSAIDs

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While nonsteroidal anti-inflammatory medications have been widely and successfully used to ease back and joint pain and injuries, it is important to be aware of potential drawbacks, including greater risks of serious cardiovascular, gastrointestinal and kidney problems.

Some estimates suggest that each year, more than 100,000 patients are hospitalized for NSAID-related GI complications alone and 16,500 people die annually from these complications.[1]

NSAID use is also associated with costly adverse events impacting the CV and renal systems. For example, NSAID use has been associated with increased risk for hospitalization due to myocardial infarction and heart failure. Likewise, acute renal failure, also associated with NSAID use, can ultimately lead to expensive dialysis treatment.[2] Studies have also shown ibuprofen alters human testicular physiology to produce a state of compensated hypogonadism[3] and low testosterone, one of the leading causes of male erectile dysfunction.

Risks and complications are typically greater for those taking the medications for a long period. The FDA recommends that people taking an NSAID for more than 10 days see a doctor, and that NSAIDs be used in the smallest effective dose for the shortest possible time.[4]

As many patients are not aware of the downside of NSAIDS, and abuse is so common in our potential patient population, as chiropractic doctors I believe it is our responsibility to inform them of the multiple risks and dangers. We may also want to at least consider offering some of the multiple natural alternatives, a few of which are briefly presented below.

Optimal EPA / DHA Status

Perhaps the most familiar supplemental approach to reducing a generalized pro-inflammatory state is to cut hydrogenated "fake fats" from the diet, limiting overconsumption of omega-6 fats and increasing omega-3 fatty acid intake, especially EPA and DHA from fish. EPA and DHA are converted by the body into powerful anti-inflammatory chemicals called resolvins which block inflammatory cytokines and prostaglandins.

Fish oil provides a variety of benefits when supplemented, particularly when the ratio of omega-3 and omega-6 fatty acids in the body is almost equal (1:1). The average diet (red meat, eggs, salad oils, chips and baked goods) is high in omega-6 fatty acids, which is why fish oil is recommended (to balance the ratio).

Fish oil supplements at normal doses are safe, but more than 3,000 mg (3 grams of EPA / DHA combined) a day increases bleeding risk. Also avoid taking with blood thinners such as warfarin (*Coumadin*). However, doses up to 6 grams a day are used in chronic inflammatory conditions or short term to rapidly garner a one-to-one (1:1) ratio in cell membranes and subsequent clinical response.[5]

It should be noted that some people will have difficulty digesting such large doses of fish oil. (In my practice, this is usually related to liver / gallbladder problems.) Emulsified fish oils allow for easy digestion. (Indeed, for patients without a gallbladder, I *always* use an emulsified, good-tasting, naturally flavored omega-3 oil.) Many people also find swallowing many large pills daily difficult, which is naturally associated with poor compliance.

Astaxanthin (ASTX)

Another nutrient found in some omega-3 rich fatty, deep cold-water fish like salmon is pertinent to this discussion. It is the phytonutrient salmon ingest in their diet that makes salmon pink: *astaxanthin* (ASTX), a marine algae. Astaxanthin has been shown in humans to significantly lower important inflammatory and metabolic disease measures. A multitude of published ASTX studies suggest it is also effective in the treatment of OA.[6]

Turmeric Curcumioids

Of course, there are plant-based phytonutrients that also have powerful anti-inflammatory effects. Perhaps the most popular right now is turmeric.

Turmeric is a spice that comes from the root *Curcuma longa*, a member of the ginger family, *Zingaberaceae*. In Ayurveda (Indian traditional medicine), tumeric has been used for its medicinal properties for various indications and through different routes of administration, including topically, orally and by inhalation.

Curcuminoids are the most active components of turmeric; according to PubMed, curcumin has been demonstrated to be safe in six human trials and has demonstrated anti-inflammatory activity. It may exert its anti-inflammatory activity by inhibition of a number of different molecules that play a role in inflammation.[7] Dosages from 1,250 to 2,500 mg a day were deemed safe.[8]

Turmeric is fat soluble and poorly absorbed. However, there are products that provide solutions to improve increased bioavailability. It is best taken with a meal with fat. (In my clinic, I have patients take turmeric containing products with an emulsified fish oil if I have recommended both.)

Ginger Rhizome

Ginger, the "root" or rhizome of the plant *Zingiber officinale*, has been a popular spice and herbal medicine for thousands of years. It has a long history of use in Asian, Indian, and Arabic herbal traditions. According to the University of Maryland Medical Center website, traditional medicine has used ginger for centuries to reduce inflammation.[9]

They cite evidence that ginger may help reduce pain from osteoarthritis (OA). In a study of 261 people with OA of the knee, those who took a ginger extract twice daily had less pain and needed fewer pain-killing medications than those who received placebo.[10]

Boswellia Serrata Extract (BSE)

The resin of the *Boswellia* species has been used as incense in religious and cultural ceremonies, and in medicines since time immemorial. Gum-resin extracts of *Boswellia serrata* have been traditionally used in folk medicine for centuries to treat various chronic inflammatory diseases.[11-12]

In a study of the potential effectiveness of BSE on rheumatoid arthritis (RA), researchers concluded

that BSE was effective in bringing significant changes on all the (enzymatic) parameters studied.[13-14]

Oral administration of BSE resulted in significantly reduced levels of inflammatory mediators.[15] The protective effects of BSE against RA were also evident from the decrease in arthritis scoring and bone histology. "The abilities to inhibit proinflammatory cytokines and modulation of antioxidant status suggest ... the protective effect of Boswellia serrata extract on arthritis,"[16]

Clinical Take-Home for Chiropractors

The above research suggests a combination of large, adequate dosages of EPA / DHA along with oral ingestion and/or topical cream application of these herbs, combined with our "hands-on" care, may offer relief equal to or greater than oft-abused NSAIDs – without nearly the potential for serious side effects, not to mention the many other significant health benefits these nutrients and phytonutrients provide beyond the scope of this article.

References

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