

# THE NATURAL APPROACH TO ARTHRITIS

## Questions and Answers for the Consumer

*Written by Joan Dobbie*

- 1) *It seems that joint health problems are showing up earlier, and we have more people living longer than before. What effect can we expect this to have on arthritis rates and on our health?*

Arthritis rates increase markedly with age. When cartilage wears out, this directly contributes to joint wear and inflammation that characterizes this disease. Arthritic symptoms include: pain, joint damage, and limited range of motion. The disease commonly occurs later in life, and mostly affects the hands and large weight-bearing joints of the body.

However, an extreme sport such as mountain biking can cause high impact damage to the joints and may result in arthritis as a future date. Many young people who participate in these high impact sports should be aware that this can lead to arthritis at an earlier age.

While all age groups are affected, the disease rates within age groups have actually stayed quite constant. Studies have shown that approximately 80% of the population over 50 years of age suffer from osteoarthritis. By age 80, the figure rises to 90%.

With our ever-increasing greying population, chronic diseases such as arthritis will continue to balloon. With the large demographic of baby boomers just now reaching their mid 50's, Canada is on track to have 6 million suffer from this chronic disease by 2020. Of those 6 million, more than 1 million will be disabled due to the condition. There are presently over 4 million people living with arthritis in this country.

- 2) *I've heard that, just as with prescription drugs, it's not considered useful, and may actually be counterproductive or dangerous, to exceed the recommended dosages (which can be found outlined in authoritative texts such as *The Complete German Commission E Monographs - Therapeutic Guide to Herbal Medicines*). In this context, a parallel can be drawn between herbal materials and mainstream prescription drugs. What are manufacturers doing to address this, assuming that it is true?*

Any reputable manufacturer targets specific products for specific health concerns or conditions. Consumers should be skeptical of products with 10 to 15 components. Such products often contain only sub-optimal levels of each of the components bringing into question the value of such a product.

Conversely, there are recognized beneficial levels of many of the herbal materials used in today's marketplace and these levels are outlined in various mainstream texts where they can easily be compared with product labels. As with any bioactive product, exceeding the recognized useful daily intake is probably not useful and indeed may even be dangerous. Thus higher potency products that exceed generally recognized values are not a useful way to proceed.

## THE NATURAL APPROACH TO ARTHRITIS

### *3) Are you seeing a trend toward formulation for specific market segments, such as athletes or the general aging public?*

By definition formulations for joint health are aimed towards those with joint problems, the vast majority of whom are athletes and older people. Ideally, the approach to such problems should be proactive. Taking supportive supplements before joint problems surface could possibly delay such developments, but unfortunately, it is human nature to believe that everything is well until actual problems arise.

The formulations to help relieve joint problems and the formulations of proactive preventative products should be very similar in make up, both quantitatively and qualitatively. Therefore any well-designed product of this nature should be equally effective for preventative maintenance or to actually benefit those with existing joint problems.

### *4) What has recent scientific research shown about the most common ingredients that support joint health?*

Perhaps the most significant clinical, multicenter study is presently being conducted by National Institutes of Health in Bethesda, MD at a cost of 6.6 million dollars. The results of this randomized, double-blind, placebo- controlled study will be available in 2004.

The NIH is studying the short-term (16 weeks) efficacy of glucosamine and chondroitin sulfate in knee osteoarthritis. Approximately 1,124 patients with knee pain and evidence of osteoarthritis were recruited in February 2000. Patients have received either chondroitin sulfate, glucosamine, a chondroitin sulfate/glucosamine blend or a placebo.

Patients are evaluated at monthly intervals for 16 weeks and closely monitored for improvement of their osteoarthritis as well as for any possible adverse reactions to the agents. Medical evaluations and x-rays will be used to document the patients' diagnoses. The primary outcome will be measured improvement in pain. Improvement in function will be included as a secondary outcome.

Animal studies have shown glucosamine to be extremely nontoxic. Glucosamine has a therapeutic margin 10-30 times more favourable than common nonsteroidal anti-inflammatory drugs (NSAID's). NSAID's can make the joints worse in the long run because these drugs destroy joint cartilage. In a large, multicenter study with over 1,500 patients glucosamine was fully tolerated in 86% and sufficiently tolerated in 11.5%. Only 2% of patients were unable to tolerate glucosamine. Peptic ulcer and diuretic use was associated with an increased risk of side effect. Common side effects included gastric upset (3.5%), heartburn (2.7%), diarrhea (2.5%) and nausea (1%).

Chondroitin may not be your best choice for treatment. Pooled literature on chondroitin sulfate biochemistry offers enough information to assert that neither intact, nor polymerized chondroitin sulfate is absorbed by the mammalian gastrointestinal tract. Therefore, no direct action of orally-administered chondroitin sulfate on cartilage and chondrocytes is possible.

Given its bovine origin, chondroitin may be an undesirable ingredient not only for vegetarians, but because of concerns about BSE or mad cow disease.

# THE NATURAL APPROACH TO ARTHRITIS

MSM (methylsulfonylmethane) is a source of sulphur, an element critical to the normal function and structure of the body. It is derived from lignan, an organic cement-like structure that binds wood fibers together. MSM supports sulfur containing amino acids such as methionine and cystine, which are necessary for the healing and repair of most body tissues, especially skin, blood vessels, organs and joints.

MSM serves as a safe, natural and effective solution for many types of pain and inflammatory conditions. For chronic conditions such as arthritis the recommended dosage of MSM is 5000-6000 mg daily. Although there are no known drug interactions and it can be safely used with standard medications, there is a possibility that it may increase the action of blood thinners. High daily doses may cause gastric discomfort or more frequent stools.

Devil's Claw root has been shown to be effective in decreasing the pain and inflammation in joints, ligaments and tendons because it contains harpagoside and beta sitosterol. This bitter root also contains saponins, which help to eliminate endotoxins from inflamed joints. The British Herbal Pharmacopea recognizes devil's claw for its analgesic, sedative and diuretic properties. Reductions in abnormally-high cholesterol and uric acid blood levels were also noted. The strongly bitter action of devil's claw stimulates and tones the digestive system. Many arthritic conditions are associated with poor digestion and absorption of food, and the stimulant effect of this herb on the stomach and gallbladder contributes to its overall therapeutic value as an anti-arthritic remedy. Devil's claw also promotes flexibility.

Nettle has a cleansing, detoxifying and mild diuretic action for the whole body, due to its flavonoids and potassium content. It contains vital minerals that are essential in reducing inflammatory conditions. Nettle will help to reduce joint stiffness and improve joint mobility.

Essential fatty acids' (EFAs) contribution to human health has been well documented. Studies show that 90% of the population is deficient in the essential fatty acid called alpha-linolenic acid (LNA). The second essential fatty acid is called linoleic acid (LA). The body can not manufacture EFAs which must be obtained in the diet. Essential fatty acids like omega-3 are derived from cold water fish such as salmon, tuna, halibut and mackerel help to reduce the inflammatory response which is associated with arthritis. Fresh, unrefined, cold pressed flax oil or evening primrose oil is high in in EFAs, especially the important omega-3 type, is also beneficial. Other sources of EFAs include fresh nuts, seeds, and dark-green leafy vegetables.

One study showed that each of the three omega-3 fatty acids (alpha linolenic acid, DHA and EPA) inhibited the production of COX-2 (an inflammation agent) without affecting COX-1 expression. Research also indicates that omega-3 fatty acids support joint health.

## *5) Are there any new ingredients or delivery systems shown to promote joint health?*

The delivery system of any herb is very important. For example, herbals presented in a liquid form are absorbed within 30 minutes at a rate of 60% - 70% whereas tablets, gel caps or pills (citrate & chelated) take up to 6 hours and are only absorbed at a rate of up to 20%. When a consumer is in pain and needs instant relief, the choice of a liquid herbal supplement is obvious.

# THE NATURAL APPROACH TO ARTHRITIS

Data from several investigations indicate that boron is an essential nutrient for healthy bones and joints. Manganese, zinc, copper, Vitamin B6 and pantothenic acid are all thought to play a role in connective tissue and joint health. Vitamin C is the most important nutrient for collagen formation, tissue growth, and repair.

Often individual supplements are combined into formulated products to provide a supplement that addresses several symptoms. This approach has several advantages, ranging from cost savings to taking fewer pills. Natural anti-inflammatory and analgesic alternatives without side effects include: devil's claw root, MSM, evening primrose oil, feverfew and white willow bark.

In conclusion, you need to look for a supplement with the proper dosage in order to get the best possible results.

---

## *References:*

1. Ali, Elvis, ND, et al. *Natural Remedies and Supplements*. Niagara Falls, NY: 2000
2. Mowrey, Daniel, PhD. *Herbal Tonic Therapies*. New Canaan, Connecticut: 1993
3. Sahelian, Ray, MD. *All About Glucosamine and Chondroitin*. New York: 1998