

IMAGE AWARENESS Wellness Institute

Osteoarthritis

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THE CONDITION

Osteoarthritis is primarily a wear and tear disease. Basically, we are wearing down the joints faster than the repair processes of the body can reverse the damage. The goal of supplementation and dietary modifications is therefore twofold: Firstly, to slow down the degenerative process, and secondly, to accelerate the reparative processes.

Osteoarthritis is the most common form of arthritis. It is characterized by degeneration of the cartilage associated with the joints resulting in pain, stiffness, and a decreased range of motion. The condition most commonly affects the knees, spine, hips, and joints in the fingers.

Medicine distinguishes between "primary' osteoarthritis which is attributed to the process of aging, and "secondary" osteoarthritis which is the result of trauma, developmental defects, metabolic disorders, consequences of obesity, or repetitive joint motion.

REFERENCE:

Gaby, Alan, *Nutritional Medicine*, Concord, NH; Fritz Perlberg Publishing, 2011, 587.

LIFESTYLE FACTORS

Weight Gain

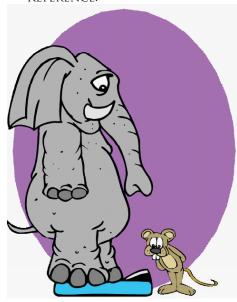
Excessive weight gain is a major contributing factor to degeneration of the joints in the hips and knees. Osteoarthritis is strongly correlated with a person's weight based on body mass index and being overweight is considered the most potent risk factor for the disease.

Studies have shown that even modest weight loss and a gentle exercise program can significantly improve the condition.

The GNLD Glycemic Response Control program is ideal support for weight loss which can lead to reduced stress and trauma of joint tissues.

GNLD Biotone can further enhance the benefits by promoting fat burning and muscle building. Biotone supports or upregulates the body's reparative processes by providing the raw materials necessary for growth hormone which tends to decline with the aging process.

REFERENCE:



Felson, David, T., Weight and Osteoarthritis, *American Journal of Clinical Nutrition*, 1996;63(Suppl.):430S-2S.

Food Allergy

A second lifestyle factor which can contribute to osteoarthritis is food allergy which may be involved in 20-30% of those who suffer with the disease. These food allergies or sensitivities can often be identified by other symptoms such as a runny nose, mouth ulcers, migraines, or an increased pulse rate after eating specific foods.

Gaby, Alan, *Nutritional Medicine*, Concord, NH; Fritz Perlberg Publishing, 2011, 587.

Nightshade Plants

Norman Childers was one of the first individuals to suggest that specific foods could contribute to osteoarthritis in his book Arthritis Childers' Diet to Stop It! The following testimonial is found on Childers' web page:

"I for one would be in a wheel-chair and likely would be a drug addict and in a mental institute because I had such severe incapacitating pains from the nightshades foods. They swelled up all my MP and IP joints to the point where I could barely walk or use my hands. They flared up my damaged back discs so badly that for days and weeks I would be 'mysteriously' bedridden and had to be carried to the bathroom while screaming in pain. At one time I was strapped in a fiberglass cast daily for six years and offered to have my back fused with



a piece of my hip. Being an M.D., I tried every known medicine and top specialist. I was ruined. Now, I'm pain-free. Your work saved my life and sanity for many pain-free productive years. Now I avoid those foods like the plague. I'm totally healthful. I can carry a hundred pound sack of oats, play golf and singles tennis, and water skiing backwards. In my 27 years of medical practice, I've never seen anything as powerful as your No-Nightshades Diet. It's right up there with the best ways to heal the impossible. I can trace every single 'mysterious' catastrophic painful episode in the past and present to the nightshades and turn the pain off and on like a switch. It takes two months to get them out of my system. I personally thank you from the bottom of my heart and on behalf of my many patients who have benefited from it. You are certainly one of God's gifts to me and my patients. I am reminded of 1 Corinthians 1, "Has God not made foolish the things of this world?" For after all the high-tech medicine could offer had failed me, a simple Diet gave me power over my pain.

With deep appreciation and admiration.

Dr. Sherry A. Rogers, M.D."

Sherry Rogers is one of the nation's leading nutritionally oriented physicians.

Childers himself became interested in the nightshades impact on health following the development of diverticulitis and a colostomy which may have been precipitated by consumption of spiced tomato juice.

Despite Childers emphasis on nightshade plants other food sensitivities have been observed to trigger joint inflammation and arthritic symptoms just as frequently as nightshade plants. On the other hand, in the cases I have observed nightshade intolerance appears to be associated with an unusual amount of pain.

REFERENCES:

Childers, Norman F., Arthritis; The Nightshades, Aging and Ill Health, Somerville, NJ; Somerset Press, Inc., 1986.

http://noarthritis.com/

Childers, N.F., and Margoles, M.S., An apparent relation of nightshades (Solanaceae) to arthritis, *Journal of Neurological and Orthopedic Medical Surgery* (1993) 12:227-231.

Gaby, Alan, *Nutritional Medicine*, Concord, NH; Fritz Perlberg Publishing, 2011, 587.

Garlic, Fruits and Vegetables

A study of twins found that a high intake of fruits and vegetables protected against the development of osteoarthritis. Garlic was found to be particularly protective. Test tube studies found that diallyl disulphide, a compound found in the allium family of foods including garlic, repressed the expression of matrix-degrading enzymes protecting the hips against osteoarthritis.

Reference:

Williams FM, Skinner J, et al, Dietary garlic and hip osteoarthritis: evidence of a protective effect and putative mechanism of action, *BMC Musculoskelet Disord*, 2010 Dec 8; 11(1): 280,

NUTRITION

B Complex

The oldest nutritioal approach to treating osteoarthritis was probably initiated by William Kaufman, Ph.D., M.D., with the publication of his book *The Common Form of Joint Dysfunction: Its Incidence and Treatment*. Kaufman had the good fortune to

treat patients suffering with pellagra prior to the widespread fortification of foods with vitamin B3 or niacinamide. He observed that the limitation of joint motion and tenderness of joints associated with osteoarthritis improved with appropriate niacinamide therapy.

After the widespread fortification of foods Kaufman observed that many of the characteristic signs of pellagra disappeared, but joint tenderness and limited range of motion of the joints persisted in many patients. He conducted meticulous studies demonstrating that supplementing these people with additional vitamin B3 improved the joint motion and other aspects of osteoarthritis.

Kaufman noted that improvement was often evident in a month and could continue for years, while cessation of the supplement resulted in slow deterioration of the condition. Multiple small doses of niacinamide worked more efficiently than less frequent large doses which might be explained by a short half-life for the vitamin.

Vitamin B3 has a wide range of benefits beyond improvement of joint function. GNLD Super B with the gradual threshold control release of the B vitamins is an ideal way to pro-



vide vitamin B3 in such a manner as to avoid the problems associated with the short half-life of the vitamin.

It also makes sense to provide the entire B Complex since other B vitaminds may be needed for optimal collagen synthesis. For example, rats fed a diet deficient in pantothenic acid (B5) develop osteoarthritis.

REFERENCES:

Kaufman, William, *The Common Form of Joint Dysfunction; Its Incidence and Treatment*, Brattleboro, VT; E.L. Hildreth & Company, 1949, 4.

Gaby, Alan, *Nutritional Medicine*, Concord, NH; Fritz Perlberg Publishing, 2011, 591.

Fatty Acids

Omega-3 fatty acids have been shown to improve osteoarthritis in some studies. Donald Rudin suggested that omega-3 fatty acids may serve as a substrate for vitamin B3 to function effectively. Deficiency of omega-3 fatty acids might limit the benefit from niacinamide or require much larger amounts of the nutrient—excessively high intake of vitamin B3 (several grams a day) has been associated with liver abnormalities.

Extracts of the oil from soybeans and avocados which can not be made into soap (unsaponifiable) have been shown to stimulate collagen synthesis in joint cartilage. GNLD Tre-en-en oils contain the unsaponifiable oils from wheat, rice, and soybeans.

REFERENCES:

Rudin, Donald, "The Major Psychoses and Neuroses as Omega-3 Essential Fatty Acid Deficiency Syndrome: Substrate Pellagra," Biological Psychiatry, Vol. 16, No. 9, 1981, p. 837.

Curtis C.L., Rees S.G., Cramp J., et al, "Effects of n-3 Fatty Acids on Cartilage Metabolism," Proc Nutr Soc, 2002;61:381-389.

Gaby, Alan, *Nutritional Medicine*, Concord, NH; Fritz Perlberg Publishing, 2011, 592.

Vitamin C

Vitamin C is essential for the synthesis of collagen and proteoglycans. Vitamin C has been shown to decrease risk of cartilage loss and significantly reduce pain.

Guinea pigs which can not synthesize vitamin C, a trait they share with

humans, develop every symptom of osteoarthritis when supplied with inadequate vitamin C as they age. A fairly substantial vitamin C intake substantially slowed the erosion of the cartilage in the animals. The guinea pigs required 150 mg. of vitamin C which is more than the recommended intake by the U.S. government for a human being. It is important to realize that high doses of vitamin C are most effective when taken in divided doses.

Vitamin C has been shown to reduce risk of developing knee osteoarthritis by 11%.

REFERENCES:

Schwartz, E.R., "The modulation of osteoarthritic development by vitamins C and E," Int J Vit Nutr Res Suppl 26, 141-6, 1984.

Peregoy J, Wilder FV, The effects of vitamin C supplementation on incident and progressive knee osteoarthritis: a longitudinal study, *Public Health Nutr*, 2010 Aug 16:1-7;

Vitamin D

Deficiency of vitamin D has been shown to speed the progression of osteoarthritis. Childers suggested that excess vitamin D could promote the development of osteoarthritis, but most of the research suggests that deficiency of vitamin D is a much greater risk factor.

REFERENCE:

McAlindon, T., et al, Relation of Dietary Intake and Serum Levels of Vitamin D to Progression of Osteoarthritis of the Knee Among Participants in the Framingham Study, *Annals of Internal Medicine*, 1996;125(5):353-359.

Manganese

Manganese plays an important role in the synthesis of condroitin, a critical component of joint cartilage. Deficiency in animals causes disordered cartilage metabolism similar to osteoarthritis in people.

Manganese levels in food crops are significantly reduced by the use of glyphosate weed killers such as Roundup[®]. As a matter of fact, these weed killers function by making manganese unavailable to weeds. Since manganese is essential for the proper

functioning of the immune system of most weeds, they fall victim to fungal infections and die.

The amounts of manganese in a good multiple should provide the necessary manganese for cartilage formation.

REFERENCE:

Gaby, Alan, *Nutritional Medicine*, Concord, NH; Fritz Perlberg Publishing, 2011, 591.

Glucosamine

Glucosamine is produced in the body from glucose and is the precursor to proteoglycans, the bricks or ground substance the body uses to make cartilage. Because of the importance of glucose in the production of glucosamine, blood sugar abnormalities may inhibit the normal process of glucosamine synthesis.

Studies have used 1500 mg of glucosamine in studies of knee pain with generally positive results-- the supplement works at least as effectively as NSAIDS (non-steroidal anti-inflammatory drugs) for pain relief. Since NSAIDS are associated with potentially dangerous side-effects and glucosamine is not associated with any dangerous side-effects, it may be wise to try glucosamine prior to resorting to the more dangerous NSAIDS.

Results of glucosamine supplementation begin to be noticeable after 4 weeks and improvements continue with time. Benefits continue for 60 days after treatment is discontinued. A 3 year study showed a slowing of the progression of the disease with this form of supplementation.

Glucosamine hydrochloride has less allergenic potential than glucosamine sulfate due to the fact that some people are very sensitive to sulfites.

Sensitivity to sulfur is often associated with a deficiency of the trace mineral molybdenum. Increasing the sulfur content of the diet with garlic and onion, cruciferous vegetables, and eggs may benefit some individu-



als with osteoarthritis.

The hydrochloride form of glucosamine is also more concentrated making tablets smaller and easier to swallow. The hydrochloride form is also easier on the digestive tract for those with digestive difficulties.

Advanced forms of osteoarthritis are less amenable to improvement with glucosamine. There are also variations in the effectiveness of different products. part of the difference here may be the difficulty of glucosamine on the digestive tract.

Lower back pain is less responsive to glucosamine than pain in the knees and other joints. Generally glucosamine is well-tolerated and does not appear to cause any serious side-effects which is not true of NSAIDS, the medical alternative.

REFERENCE:

Gaby, Alan, *Nutritional Medicine*, Concord, NH; Fritz Perlberg Publishing, 2011, 588-590.

SUPPLEMENTING

Chondroitin is involved in proteoglycan synthesis much like glucosamine. One of the primary differences between the two is that glucosamine is well-absorbed, while chondroitin is not. GNLD Full Motion contains glucosamine hydrochloride combined with a number of synergistic nutrients and herbals. The 'Herbal Comfort Complex' component of the product boosts the body's natural anti-inflammatory capacity. White willow and boswellia function as natural the anti-inflammatories. Bromelain is added to enhance this anti-inflammatory effect.

A Regenerative Mineral Complex (RMC) assures an abundance of critical minerals for repair and regeneration of lost or damaged cartilage. Silica, zinc and boron provide the mineral support for cartilage formation. Boron is often low in the bones and joint capsules of arthritic patients.



Full Motion glucosamine is derived from the shell of shellfish. The product is pharmaceutically pure that the problem of allergic reactions is minimized.

WEB RESOURCES

www.imageawareness.com www.yourbodyssignlanguage.com www.jimmcafee.com

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