

OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Edwin Lau

Supplements for Joint Health

Millions of people suffer from joint pain and dysfunction. Chiropractic offers effective relief for joint discomfort and prevents future joint problems.

But what about all of the dietary supplements that claim to ward off joint problems? Do any of those on the market work? Dr. Lau has analyzed the latest research on supplements and joint health and shares it here with patients.



Whether it starts with sore knees, aching hips or stiff elbows, one in five people will experience chronic joint problems. People over 45 who are more than 10 pounds overweight are most susceptible. But other factors, such as injury, also up the risk.

Symptoms include pain, stiffness, swelling, instability and weakness. Over time, these aches and pains worsen and eventually stop sufferers from participating in everyday activities. What's worse, this situation often triggers a cascade of additional medical tribulations.

Start With Chiropractic

Chiropractic offers a variety of solutions for joint pain, but it can do so much more than just quell pain. According to a Canadian study, chiropractic manipulation for joint prob-

lems has been practiced for thousands of years by many civilizations. It has stood the test of time because it corrects and restores function (*Can J Appl Physiol* 1999;24:279-89).

Chiropractic traces many joint problems to disruption or irritation of the nervous system by mechanical, chemical or even emotional factors.

One study showed that chiropractic adjustments to the spine of the neck (cervical spine) improve range of motion in the hip. This verifies the interconnection of the spine, and the influence of one part of the spine on another (*J Manipulative Physiol Ther* 1998;21:611-6).

A recent test of 42 patients, including 14 with joint-related pain, showed that chiropractic adjustments were safe and effective at reducing joint pain (*Journal Chiro Med* 2007;6:15-19).

In another analysis, a group of Dutch researchers set out to determine whether physiotherapy, joint manipulation or cortisone injection was best for shoulder girdle pain. Results revealed that manipulation is the preferred treatment (*BMJ* 1997;314:1320-25).

Supplements That Benefit the Joints

Along with chiropractic adjustments, Dr. Lau recommends regular exercise, optimal dietary practices and specific supplementation to preserve joint

structure. Some of these supplements are well-known, but others are less familiar.

Note: Never begin a supplementation program without first consulting with your doctor of chiropractic.

The A Team: Glucosamine and Chondroitin

At the top of the joint health supplement roster is glucosamine (preferably as glucosamine sulfate or glucosamine HCL). This naturally occurring amino sugar (usually taken from shellfish) is often paired with chondroitin sulfate (from animal cartilage), a chemical contained in the protein that makes cartilage elastic.

A mounting body of research supports the use of these supplements to boost joint health. And it's most likely best to take them in conjunction, say scientists. For instance, researchers at the North Dakota School of Medicine and Health Sciences found that glucosamine and chondroitin act synergistically to reverse damage and promote cartilage repair (*Osteoarthritis Cartilage* 2006;14:793-806). In this study, the two together worked better than either nutrient alone.



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Reduction of Joint-Space Narrowing

Other studies on glucosamine alone show that, over the long term, it can slow the process of joint narrowing, which is the source of pain for many people.

A Belgian analysis examined 212 people with knee problems who took glucosamine daily for three years. There was no additional joint-space loss in the knees of study subjects, as opposed to people who did not take the supplements. Researchers determined that glucosamine may be a disease-modifying agent in regard to osteoarthritis (*Lancet* 2001;357:251-6).

Another investigation showed that glucosamine taken for one to three years can prevent the need for total knee replacement for up to five years after people stopped taking the supplement (*Osteoarthritis Cartilage* 2007;Epub).

Say OK to O-3s

A wide range of research confirms that omega-3 fatty acids are supportive of strong joints. Omega-3s modify the degenerative and inflammatory factors that destroy cartilage (*J Biol Chem*;275:721-4).

Specifically, omega-3s increase eicosapentaenoic acid and reduce arachidonic acid (AA) in the body (*Eur J Med Res* 2003;8:381-7). Eicosapentaenoic acid inhibits inflammation while arachidonic acid is a long-chain omega-6 fatty acid, which triggers inflammation.

Another study determined that omega-3s are an “attractive adjunctive treatment” for joint pain caused by arthritis or other illness (*Pain* 2007;129:210).

Go Green

Green tea and the potent chemicals and antioxidants extracted from it are promising solutions for joint disorders. One study showed that the polyphenolic compounds in green tea quench inflammation and inhibit the break-

down of cartilage (*J Nutri* 2002;132:341-6).

Another animal research project illustrated that these same compounds slash arthritis-associated inflammation by 33 percent to 50 percent (*Proc Natl Acad Sci USA* 1999;96:4524-9).

A Danish investigation into green tea found that it improves metabolic function of articular cartilage (*J Am Acad Orthop Surg* 2003;11:421-30). The emerald elixir may also slash the severity of arthritis. In some cases, it may even help prevent onset of the disease.

Additional Supplement Options

The following supplements have also been proven to promote joint health:

Devil's Claw is a relative of sesame. It has a “clinically beneficial effect in the treatment of joint problems in the hip or knee” and is associated with a strong reduction in pain and symptoms (*Phytother Res* 2003;17:1165-72). Other studies point to the anti-inflammatory properties of Devil's Claw and its effectiveness when used for low-back pain.

B vitamins lower the level of the protein homocysteine in the blood. Homocysteine is connected closely to the inflammation response (*Scand J Rheumatol* 2003;32:205-10).

S-adenosylmethionine (SAME) is a coenzyme produced and used mostly in the liver, although it travels throughout the body along certain metabolic pathways. SAME is involved in the processing of nucleic acids, proteins and fats. One study showed SAME is as effective as the prescription Celebrex[®] for pain reduction, although it can take longer to start working (*BMC Musculoskelet Disord* 2004;5:6).

Methylsulfonylmethane (MSM) is a sulfur compound found in some plants and foods. In one report, MSM improved physical function and reduced pain associated with arthritis (*Osteoarthritis Cartilage*

2006;14:286-94). It is often combined with other ingredients, including glucosamine.

Tripterygium wilfordii Hook F (TWHF, Thunder Vine, Lei kong teng) is a climbing vine used traditionally in Chinese medicine. A study by the arthritis division of the National Institutes of Health found that TWHF exerts a therapeutic benefit in patients who have the type of arthritis that involves an immune response (*Arthritis Rheum* 2002;46:1735-43).

Stinging Nettle has been used medicinally by many cultures. One study showed it to be effective for relief of symptoms associated with osteoarthritis (*Semin Arthritis Rheum* 2005;34:773-84).

Chiropractic to the Rescue!

The upshot of these research results is that much can be done to alleviate joint pain and preserve joint health.

Research has shown that the supplements outlined here can be helpful, safe alternatives to prescribed painkillers — and even to some surgeries. When taken over the long term, the right supplements can help you recover function and maintain joint integrity.

Arm yourself with information by scheduling a chiropractic evaluation today. The doctor will educate you more about supplementation, damage prevention and drug-free solutions to joint problems.

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