PT eDigest™

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Can Glucosamine and Chondroitin Supplements Relieve My Arthritis?

About 10 million Americans suffer from osteoarthritis (OA), a painful condition in which the cushioning cartilage between bones wears away. To ease pain, OA sufferers often take supplements, the best known being **glucosamine** and **chondroitin sulfate**. Glucosamine is thought to inhibit inflammation and stimulate cartilage cell growth, while chondroitin may strengthen cartilage and increase its resilience. Thus, they may actually impact the degeneration process.

Available without a prescription, glucosamine and chondroitin are usually taken as one tablet by mouth and are well tolerated. The most commonly reported side effects include nausea, diarrhea or constipation, heartburn and increased intestinal gas.

There are some contraindications, however.

- **People with diabetes should use caution when taking glucosamine because it may raise blood sugar.**
- **Those taking blood-thinning medication (anticoagulants) should also check with their doctors before taking these supplements.**
- **Because glucosamine is extracted from a substance in shellfish, people allergic to shellfish should consult their doctors before using a glucosamine and chondroitin supplement.**
- **Glucosamine and chondroitin are not recommended for children, women who are pregnant and women who could become pregnant.**

Before taking these supplements, check with your doctor to review other medications you are taking and help you decide if glucosamine and chondroitin are right for you.

Studies of the benefits of glucosamine and chondroitin have been inconclusive, but research regarding exercise is not! Exercise remains one of the best treatments for OA. We can design an individual program of exercises, which will help keep your joints flexible, the muscles around the joints strong, bone and cartilage tissue strong and healthy, and reduce pain.

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Ankle Sprains: Not All Are Created Equal

A sprained ankle is a very common injury, with approximately 25,000 people—athletes and nonathletes, children and adults—experiencing it each day. An ankle sprain affects the **ligaments**, tough elastic bands of tissue on the outside of the ankle that connect the ankle bones to each other and protect the ankle joint from abnormal movements, such as twisting, turning and rolling of the foot. When a ligament stretches beyond its normal limit, a sprain occurs. While most sprains respond quickly to treatment, up to 40% of patients will develop chronic ankle instability that makes it easy to reinjure the ankle.

Grade I sprains (mild) occur when the ligaments are overstretched, but only a small number of fibers are torn. The ankle becomes tender and swollen. The injury will heal by itself with R.I.C.E.—Rest, Ice, Compression and Elevation—but the ankle will likely be more susceptible to reinjury, and some individuals may need to wear an ankle brace during strenuous activity.

With grade II sprains (moderate), the ligament is partially torn, but with more fibers involved than grade I, causing swelling, bruising, extensive pain, difficulty bearing weight and joint instability. People with grade II sprains should see a doctor, who may prescribe a splint or Aircast and crutches for several weeks to immobilize the ankle and minimize ankle stress. Nonsteroidal anti-inflammatory drugs, if your doctor agrees, can reduce swelling and alleviate pain. In some cases, prescription pain medications may be needed to provide adequate relief.

In grade III sprains (severe), the ligament is completely torn, causing severe pain, widespread swelling and bruising, loss of joint function and an inability to bear weight. People with grade III sprains should follow the R.I.C.E. principles and seek medical attention as soon as possible. Cast immobilization is sometimes required for several weeks to minimize ankle stress, but surgery to repair the ruptured ligament is rarely necessary.

For grade I and grade II ankle sprains, starting a two- to six-week rehabilitation program after the first 48 hours is crucial to promote healing, reduce pain and swelling, strengthen the ligament and improve the range of motion. For grade III sprains, a rehabilitation program can be administered and undertaken with care after four weeks and continued over a six-week period. Whatever the severity of your sprain, we can create an individual program of rehabilitation exercises to enable you to resume your normal activities as soon as possible.

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Treadmill Rehabilitation After Stroke

The treadmill used by a person after experiencing a stroke is not your average gym model. It is specially designed to help the rehabilitation process, walking in particular.

In **locomotor treadmill training**, a harness secures the patient and helps support some of his or her body weight. As the patient gains strength and the skills improve, the harness is adjusted so it supports less and less weight, until ultimately the patient can walk close to normal on his or her own. When this technique is begun very soon after the stroke—even before a patient has had a chance to try walking—the abnormal, compensatory gait that often marks a stroke survivor never has a chance to develop.

A second type of treadmill, the **split belt treadmill**, could potentially help people who had strokes months or even years ago and who have already developed abnormal walking patterns. It has two belts, each controlling one foot, so that as one foot moves forward, the other moves backward, at different speeds. In preliminary tests, people with no walking problems used the treadmills for 15 minutes. When they got off, they continued to walk in a lurching manner for 10 minutes or so, indicating that their legs' nerve networks had been "rewired," at least temporarily. The hope is that when a stroke patient consistently trains on such a treadmill—programmed to correct his or her particular gait issues—the nerve networks, too, will become modified so that they eventually allow for much more normal walking.

After a stroke, we can help patients use such equipment to learn to walk more normally and fluidly. Such a program will hasten rehabilitation and enable patients to avoid the stroke victim's altered gait that the body has adopted as the new normal.

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Healing a Shoulder Injury

The shoulder joint has the widest range of movement in the body, but mobility is achieved at the expense of stability. The **labrum**, a ring of thick, fibrous cartilage running around the edge of the shoulder socket, holds the bones in place, extends the joint to make it more stable and provides cushioning. When it sustains an injury, the shoulder can be traumatized.

A labral injury may be triggered by a fall or a similar stress to the shoulder. With age, the labrum tends to become less flexible and tears more easily. The most common symptom is a clicking, catching or slipping sensation when the shoulder is moved, followed by a dull ache. Sometimes, the tear may not cause any pain.

Some labral tears heal by themselves, while others may need surgery, but for safe, comfortable healing and a quicker return to a healthy shoulder, it is best to obtain treatment immediately after the symptoms appear. Initially, a combination of icing and anti-inflammatory medications, if your doctor agrees, may provide relief. In addition, exercise is likely to hasten successful healing by encouraging

- **improved, fuller range of motion**;
- **improved stability and smoother movement**;
- **regained strength in the shoulder**; and
- **reduced pain during healing**.

We can develop a program of exercises to stretch the joint capsule for easier movement and strengthen the muscles that help rotate the shoulder, thus enabling you to resume your daily activities quickly and pain free.

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Does a Herniated Disc Mean Surgery?

Back pain can put a severe crimp in your daily activities. One cause of such pain is a herniated disc, also called a slipped or ruptured disc. A common condition of the lower back that seldom requires surgery, herniated discs are most common in women and men aged 30 to 50 years, although they also occur in active children and young adults.

For most people who experience a herniated disc, home remedies work effectively to alleviate the pain. During the first 24 to 48 hours after experiencing pain, apply an ice pack to the painful area several times a day for no longer than 20 minutes at a time to reduce swelling, muscle spasm and pain. Then, after 48 hours use a heating pad or take a warm shower to relax sore tissues.

Prescription and over-the-counter medications taken on a regular schedule may also help reduce swelling and alleviate pain. These include the following:

- **nonsteroidal anti-inflammatory drugs if your doctor agrees (they may cause stomach bleeding or other side effects)** or
- **narcotic pain relievers prescribed by your doctor for intense but short-lived pain.**

Extended bed rest is no longer recommended for back pain. Limited activity such as walking, bicycling and swimming can speed healing. Wearing a brace or back support may relieve pressure on the nerves. If, after you have tried nonsurgical treatment with no improvement for one to six months, your doctor may recommend surgery, an option eventually considered for about one out of 10 people who have a herniated disc.

While exercise is usually not advisable for acute back pain, proper exercise can ease chronic pain and reduce its risk of returning, improve your posture, keep your body in better balance and lower your chance of injury. To stretch and strengthen your back muscles, we can design a series of therapeutic exercises that, along with such passive treatments as the application of cold or heat packs, electrical stimulation, ultrasound and massage, can reduce pain, aid in healing and enable you to resume a normal routine.