

About 30 million Americans suffer from osteoarthritis, an often painful condition in which the cushioning cartilage between bones wears away. Many people are trying new therapies and dietary supplements such as glucosamine and chondroitin sulfate in their search for relief.

Glucosamine is found naturally in the body. It stimulates the formation and repair of articular cartilage. Over-the-counter supplements come from animal sources. Chondroitin sulfate is another natural substance found in the body. It prevents other body enzymes from degrading the building blocks of joint cartilage. The type sold in health-food stores and pharmacies is derived from animal products.

People who use these nutritional supplements hope that they will relieve the pain of osteoarthritis, and perhaps even repair or restore the joint cartilage. Recent evidence seems to support the first claim. Both glucosamine and chondroitin sulfate have been used in Europe for several years, with few reported side effects. Both supplements also have some anti-inflammatory effects that may account for the pain relief.

But there is no proof that either substance, taken singly or in combination, will actually slow the degenerative process or restore cartilage in arthritic joints. All studies done to date have been short and focused on pain relief. A long-term study is just beginning, sponsored by the National Institute of Arthritis and Musculoskeletal and Skin Diseases and the National Center for Complementary and Alternative Medicine.

Dietary supplements like glucosamine and chondroitin sulfate are not tested or analyzed by the Food and Drug Administration before they are sold to consumers. That means consumers can't be sure they're getting what they pay for when they purchase bottles labeled "Glucosamine/Chondroitin." In fact, a recent study by ConsumerLab.com showed that almost half of the glucosamine/chondroitin supplements tested did not contain the labeled amounts of ingredients.

It is always a good idea to do some research first to find out about the supplement you are considering buying. Stick with a reputable manufacturer. Because these products are not regulated, consumers are on their own. Standards can vary among manufacturers, so avoid brand names you don't know.

For additional information on glucosamine, check the website for the National Institute's of Health: www.nih.gov.

- Materials borrowed from the American Academy of Orthopaedic Surgeons. More information can be found at www.aaos.org