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Glucosamine for Osteoarthritis [OA] of the Knee

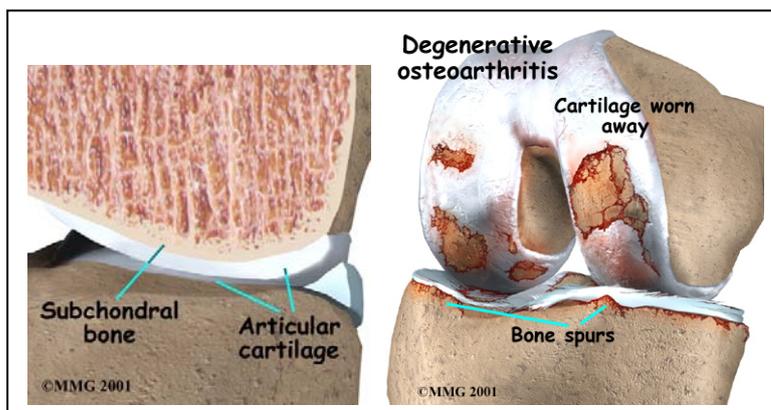
Introduction

Nonsurgical treatment of knee osteoarthritis (OA) focuses on reducing pain and maintaining or improving joint function.

Glucosamine and chondroitin sulphate **are somewhat controversial** treatments. Many unanswered questions, especially about long-term effects.

What part of the knee joint does OA affect?

The main problem in knee OA is degeneration of the articular cartilage. Articular cartilage is the smooth lining that covers the ends of bones where they meet to form the joint. The cartilage gives the knee joint freedom of movement by decreasing friction.



The articular cartilage is kept slippery by joint fluid. An important substance present in articular cartilage and synovial fluid is called hyaluronic acid. Hyaluronic acid helps joints collect and hold water, improving lubrication and reducing friction. It also acts by allowing cells to move and work within the joint.

Glucosamine

They can also be made and given in pill form or by injection. The theory is that these supplements can help protect, or possibly even repair, damaged cartilage. Scientific studies lend support to the benefits that these supplements have on reducing pain, swelling, and tenderness, along with improving knee joint mobility.

Laboratory experiments suggest that glucosamine introduced to the body is absorbed by the synovial fluid. Glucosamine supplements also seem to encourage production of hyaluronic acid.

Glucosamine and chondroitin sulphate also help fight inflammation, which in turn reduces joint pain, swelling, and tenderness from knee OA. These compounds seem to work in a different way than NSAIDs. They take longer to achieve the same benefit, but the results tend to last longer than NSAIDs.

Most importantly, they have fewer side effects than NSAIDs. It's possible that some patients may get good pain relief with a combination of the two.

Though the data isn't conclusive, these two supplements have been shown to decrease pain and improve joint mobility in patients with knee OA. Most people start to notice a difference after taking the supplements for four weeks. Maximum benefits happen by eight to 12 weeks, and the benefits seem to last even after treatment has ended.

Glucosamine and chondroitin sulphate are not magic bullets. They are one form of treatment in a comprehensive approach to knee OA.

Dose: Oral glucosamine 500 milligrams three times per day

Most people can take these supplements without complications. The main complaints are gastrointestinal problems.

Glucosamine sulphate affects the way insulin works, diabetics are encouraged to monitor their blood glucose levels carefully and to alert their doctor of any marked changes.

Also, children, pregnant women, and patients who are on blood thinners should only take with the approval of their doctor.

Rehabilitation

Get aerobic exercise.

Do strengthening and range-of-motion exercises.

Lose weight.

Use heat and cold packs.

Wear wedged insoles in their shoes.

Use equipment: such as a cane.

Participate in education programs or support groups.