

Glucosamine

Glucosamine is a natural chemical compound that's found in the body. As a supplement, glucosamine is most often used to ease the joint pain caused by arthritis.

Glucosamine Uses

Glucosamine helps keep the cartilage in joints healthy. But natural glucosamine levels drop as people age. This can lead to gradual deterioration of the joint.

There's good evidence that glucosamine *sulfate* supplements can help counteract this effect. Specifically, glucosamine has been shown to help with mild to moderate osteoarthritis of the knee. Glucosamine may also help with other joint pain caused by osteoarthritis. However, the scientific evidence of glucosamine's benefit to other joints is not quite as solid.

Glucosamine has also been used for rheumatoid arthritis and other conditions, such as inflammatory bowel disease, asthma, allergies, chronic venous insufficiency, sports injuries, temporomandibular joint problems (TMJ), and many others. So far, these uses of glucosamine are not well supported by evidence from research studies.

Glucosamine Dose and Instructions for Use

For osteoarthritis, the typical dose of glucosamine is 500 milligrams of glucosamine *sulfate* taken three times a day. Some experts recommend taking glucosamine with meals to prevent stomach upset.

Glucosamine Food Sources

Although glucosamine *sulfate* supplements are often manufactured from the outer shells of shellfish, there aren't any natural food sources of glucosamine.

Glucosamine Supplement Information

Glucosamine *sulfate* is typically sold as tablets or capsules. (In some studies, glucosamine was given by a doctor intravenously or by injection.) If you buy supplements, keep glucosamine sulfate supplements in a cool, dry place, away from humidity and direct sunlight.

There are other glucosamine formulations, such as glucosamine *hydrochloride*. Since glucosamine *sulfate* is the best studied, it's wise to stick with that.

Glucosamine Warnings

- **Side effects** from glucosamine are generally mild. Studies have found that the side effects from standard doses of glucosamine aren't different from those of a placebo. At higher doses, side effects may be more likely from glucosamine. Side effects include upset stomach, heartburn, drowsiness, and headache. The level of glucosamine that would cause an overdose is unknown. On the whole, glucosamine seems to be a fairly safe supplement.
- **Risks.** People with allergies to shellfish should be wary of using glucosamine, since it could cause an allergic reaction. Those who have diabetes, kidney disease, heart disease, bleeding disorders, or high blood pressure should check with a doctor before using glucosamine.
- **Interactions.** People taking heart medicines, insulin, blood thinners, and diuretics should not take glucosamine.

Given the lack of evidence about its safety, glucosamine is not recommended for children or for women who are pregnant or breastfeeding.

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