



## Glucosamine & Chondroitin

### WHAT IS IT?

Glucosamine and chondroitin are special types of proteins that are found in the cartilage of joints. They can be isolated from animals (mostly from the shells of shrimp and other shellfish, as well as animal cartilage), purified, and taken as a supplement to improve the health of joints and decrease the symptoms of arthritis.

Oral supplements of glucosamine sulfate appear to work by stimulating the growth of new cartilage within joints and also by reducing levels of local inflammation.

### WHO MIGHT CONSIDER TAKING THIS?

Glucosamine and chondroitin are widely used by people with osteoarthritis for the purpose of reducing pain and inflammation in the joints. These substances have been shown to reduce overall pain associated with osteoarthritis and may help to minimize joint degeneration.

These substances are not effective for relieving the pain of acute flare-ups.

The majority of studies were done for arthritis of the knee, so we are still unsure if they help other parts of the body as well. Glucosamine and chondroitin are only useful in osteoarthritis (wear-and-tear arthritis) and have not been found to improve the symptoms of Rheumatoid arthritis or other autoimmune joint diseases.

### PREPARATIONS AND DOSAGE

Formulation: Ensure that you are taking **glucosamine sulfate** and not glucosamine hydrochloride (HCl), as only the sulfate form is effective.

### Dose:

Osteoarthritis: glucosamine sulfate 500mg three times daily or 750mg twice daily has been used alone or in combination with chondroitin sulfate 400mg three times daily or 600mg twice daily.

### Interactions:

Do not take with warfarin or other blood thinners, or while on chemotherapy.

### CONCERNS?

Glucosamine and chondroitin are considered safe dietary supplements and have little to no side effects. In the majority of large clinical studies, severe adverse events have been rare.

Glucosamine is either made synthetically or derived from marine organism outer shells (shrimp, lobster and crab). One concern with glucosamine is the possibility of triggering a shellfish allergy in susceptible people. This is unlikely to be a problem because shellfish allergy occurs due to the proteins in the shellfish meat, not the shell itself. But please take precaution if you have a known shellfish or iodine allergy.

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