

# Glucosamine / Chondroitin Sulfate

**BRAND NAMES: SYNOVIG3, MISSING LINK PLUS, COSEQUIN, GLYCOFLEX, AND NEARLY UNCOUNTABLE OTHERS**

AVAILABLE IN  
TABLETS, CAPSULES,  
POWDERS, and EVEN  
ORAL LIQUIDS

## HISTORY AND BACKGROUND

Degenerative joint disease, commonly called "arthritis," is a painful condition frequently treated with anti-inflammatory pain-relievers. It has been of interest to seek medications which might actually strengthen damaged cartilage and potentially complement these anti-inflammatory pain-relievers. Glucosamine and chondroitin sulfates represent solutions to this problem.

In a normal joint, cartilage breakdown is balanced by cartilage production. In the diseased joint, there is more breakdown than production. Glucosamine & chondroitin sulfates are components of cartilage and the theory is that by taking these precursors orally, one's body can use them to repair and rebuild cartilage where it is damaged. It has further been suggested that these substances may have anti-inflammatory properties of their own and/or may act by stimulating the synthesis of joint lubricants and collagen within the damaged joint.

Glucosamines and chondroitin sulfates are extracted from sea molluscs (such as *Perna canaliculus* also known as the New Zealand green-lipped mussel), from shark skeleton, as well as from cattle. They are considered nutritional supplements.

Manganese is a co-factor in joint fluid synthesis and is often included in glucosamine/chondroitin sulfate supplements.

## USES OF THIS MEDICATION

Glucosamine and chondroitin sulfates might be used in any joint condition involving the classical joint structure (2 bones with cartilage covered ends articulating, a fibrous capsule with ligaments connecting the bones, and lubricating fluid assisting the smooth motion of the joint). Glucosamine and chondroitin sulfates are not likely to be helpful with disease involving other types of joints (i.e. the vertebrae and intervertebral discs).

## SIDE EFFECTS

The only side effect reported has been a clinically insignificant decrease in platelet (blood clotting cell) function.

## INTERACTIONS WITH OTHER DRUGS

While the aforementioned decrease in platelet function has not been significant, it could become significant should glucosamines/chondroitin sulfates be used in conjunction with other medications that influence platelet function (aspirin, phenylbutazone).

## SPECIAL CAUTIONS

Nutriceuticals are not regulated by the FDA as they are not considered "drugs." This means that they can be sold without scientific proof of efficacy and without mandatory testing to determine the optimal dosage. There are numerous anecdotal reports of these medications helping numerous individuals but one should keep in mind that scientific investigation is continuing.



## Mar Vista Animal Medical Center

3850 Grand View Blvd., Los Angeles, CA 90066 • (310) 391-6741 • Fax: (310) 391-6744  
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<http://www.marvistavet.com>