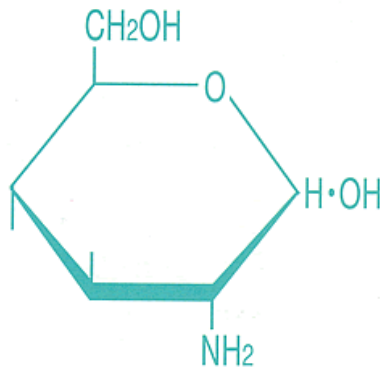


GLUCOSAMINE

Scientific Name(s): 2-Amino-2-deoxyglucose

Common Name(s): Chitosamine

Molecular Structure:



What Glucosamine Is? Why Glucosamine Works ?

Glucosamine is a natural sugar produced by the body and found in certain foods. It plays an important role in the production, maintenance, and repair of cartilage, the white, smooth, rubber-like padding that covers the ends of bones and prevents them from rubbing against each other painfully as we move. It also helps form ligaments, tendons, and nails.

Glucosamine stimulates the production of glycosaminoglycans and proteoglycans, two essential building blocks of cartilage. In most cases, the joints produce sufficient glucosamine to keep the cartilage in good repair, but if they fail to do so, it dries out, degenerates, cracks, and may even completely wear away. Left unprotected, the joints then become swollen, stiff, inflamed, tender, and painful--the condition known as osteoarthritis.

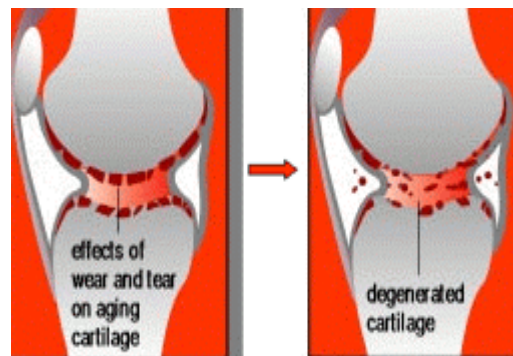
Advocates believe that by taking artificially synthesized glucosamine sulfate supplements, osteoarthritis sufferers can "jump start" the natural production of glucosamine by their own bodies. Combining glucosamine with chondroitin sulfate is thought to increase its effectiveness.

While glucosamine has been used (and prescribed) to sufferers of osteoarthritis pain in Europe since the 1980s, its use in the United States has been confined mainly to arthritic

animals. However, several scientific studies have recently supported its effectiveness, and its popularity in this country is spreading quickly.

Glucosamine is beneficial to sufferers of osteoarthritis pain - both humans and pets. Glucosamine has been proven effective in easing osteoarthritis pain, rehabilitating cartilage, renewing synovial fluid, and repairing joints that have been damaged from osteoarthritis.

Each person and animal produces a certain amount of glucosamine within their bodies. As you grow older, your body loses the capacity to make enough glucosamine, so the cartilage in your weight-bearing joints, such as the hips, knees, and hands is destroyed, then hardens and forms bone spurs, causing pain, deformed joints, limited joint movement and limping.



- Glucosamine assists in osteoarthritis pain relief
- Glucosamine assists in articular joint pain relief
- Glucosamine assists in rehabilitating damaged cartilage
- Glucosamine assists in slowing deterioration of cartilage from osteoarthritis
- Glucosamine assists in improving mobility
- Glucosamine assists in stimulating the production of proteoglycans, glycosaminoglycans, and synovial fluid

Chemistry

Chemically, chitin is a biopolymer that is cellulose-like but differs in that it is made up of predominantly unbranched chains of beta (1-4)-2-acetamido-2-deoxy-D-glucose or N-acetyl-D-glucosamine residues. Basically, it can be perceived as a cellulose derivative where the C-2 hydroxyl groups of the polymer have been replaced by acetamide moieties. Chitin is a normal component of shellfish such as crab, shrimp, and lobster. Glucosamine is isolated from chitin and is chemically 2-amino-2-deoxyglucose. It also can be prepared synthetically. Glucosamine sulfate is the preferred form.

Specifications

GLUCOSAMINE SULPHATE SODIUM SALT

Description	A white Crystalline Powder
PH	3-4.5
Specific Rotation	+52° ±2°
Loss On Drying	NMT 1.0%
Residue On Ignition	23-25%
Chloride	NLT 14%
Assay	98-102

GLUCOSAMINE SULPHATE POTTASIUM SALT

Description	A White Crystalline Powder
Identification	Infra Red Absorption
Solubility	Freely Soluble in Water
Loss On Drying	N M T 1.0%
Specific Optical Rotation	±52° ±2°
PH (2.0% w/v Solution)	3.5—5.5
Potassium	N L T 12.0%
Residue On Ignition	N L T 24.0%
Assay	N L T 98 %

D-Glucosamine hydrochloride

Product Specifications

Appearance	white fine crystalline powder
Infrared spectrometry	Authentic
Assay Total base	97.5 to 101.5 %
Loss on drying	<0.3 % (105°C, 3 hrs)
Heavy metals (as Pb)	<10 ppm
Sulfated ash	<0.1 %
Specific optical rotation	+70.5° to +74.5° (20°C, 589 nm) (c=2, H ₂ O) after 5 hrs.
Trace analysis	Type: NH ₄ measure < 200 ppm Type: SO ₄ measure < 200 ppm Type: Fe measure < 20 ppm Type: As measure < 1 ppm
Chloride(Cl)	16.3 to 16.5 %
Transmittance	>98 % (c=5, H ₂ O, 430 nm) 1 cm cell

Packing: 25 Kg/50 Kg HDPE drums/ Fiber Drums as per customer's requirement

Storage: Store in Cool and Dry place