Cartilage is composed primarily of collagen, water and proteoglycans. Collagen is a protein that forms a fibrous network that resists tensile forces. Proteoglycans compressive (weight-bearing) forces. Proteoglycans (PGs) have a high affinity for water. This creates equilibrium between the proteoglycan gels and the collagen fibers.

Cartilage relies upon diffusion of nutrients through the cartilage matrix from distant blood vessels in bone and synovial membranes.

Inflammation is characterized by local edema and swelling. If present near joints, this increase in pressure slows diffusion of nutrients from blood to chondrocytes. Inflammatory processes increase free radicals and may compromise cell function.

**Purified Chondroitin Sulfates**

Chondroitin sulfates (CS) are glycosaminoglycans (GAGs), which are large heterogeneous biological polymers used by the body to maintain proper elastic integrity within tissues. The chief GAG of cartilage is Chondroitin Sulfate (CS). CS is a repeating disaccharide, specifically glucuronic acid and sulfated N-acetylglucosamine.

Cartilage is a component of connective tissue and helps provide support and shape to tissues. Cartilage PGs contain a central protein core to which GAGs are attached.

Aging causes many changes of CS patterns in cartilage PGs. Age-related decreases in water content, CS chain size and amounts of CS relative to other GAGs are seen. Mechanical stress and loading hasten the age-related changes and perhaps predisposes or causes undesirable responses to cartilage.

A number of nutritional products being marketed as Chondroitin and Glucosamine to suggest efficacy. There have been sufficient short-term studies with mucus of the GI and respiratory tracts. The body as well as glycoproteins of cell membranes and glucosamine serves as a building block of cartilage, helping provide support and shape to tissues. Cartilage is a component of connective tissue and helps provide support and shape to tissues. The chief GAG of cartilage is Chondroitin Sulfate (CS). CS is a repeating disaccharide, specifically glucuronic acid and sulfated N-acetylglucosamine.

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cellular metal ions to produce hydroxyl radicals, extremely reactive free radicals, that can attack DNA. Oxidative damage is believed to underlie degenerative conditions.

Copper and Zinc SOD are the major forms in the body and they are essential in protecting cells against damage due to inflammation. Plant SOD seems to resist the rigors of the digestive tract, increasing the possibility of its absorption.

Catalase
Catalase is a highly reactive Enzyme that destroys Hydrogen Peroxide. Catalase is considered an antioxidant. Hydrogen peroxide is a powerful oxidizing agent occurring naturally in cells as a by-product of metabolism that can damage cells. It is formed by specialized oxidative structures in cells called peroxisomes.

References

Supplement Facts

<table>
<thead>
<tr>
<th>Serving Size: 2 Capsules</th>
<th>Servings Per Container: 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin C</td>
<td>as ascorbic acid</td>
</tr>
<tr>
<td>Niacin</td>
<td>as niacinamide</td>
</tr>
<tr>
<td>Panthethine Acid</td>
<td>as calcium pantothenate</td>
</tr>
<tr>
<td>Folic Acid</td>
<td>as folic acid</td>
</tr>
<tr>
<td>Vitamin B3</td>
<td>as niacin bound coenzyme</td>
</tr>
<tr>
<td>Manganese</td>
<td>as manganese gluconate</td>
</tr>
<tr>
<td>Glucosamine</td>
<td>free glucosamine HCl*</td>
</tr>
<tr>
<td>Purified Chondroitin Sulfate</td>
<td>(soyine)</td>
</tr>
<tr>
<td>MSM</td>
<td>(methylsulfonylmethane)</td>
</tr>
<tr>
<td>Sulfate</td>
<td>Fructose (fructofuranoside) (sucrose)</td>
</tr>
<tr>
<td>Superoxide Dismutase</td>
<td>(from vegetable culture)</td>
</tr>
<tr>
<td>Catalase</td>
<td>(from vegetable culture)</td>
</tr>
</tbody>
</table>

*Daily Value not established

Other Ingredients: Capsule shell (gelatin and water) and magnesium stearate (vegetable source). Contains ingredients derived from shrimp and crab shell.

Specially grown biologically active vegetable culture containing naturally associated phytoreactors inducing polyenolic compounds with SOD and catalase, dehydrated at low temperature to preserve associated enzyme factors.

** Glucosamine [(2S),200 mg] and dehydroquercetin, 450 mg

RECOMMENDATION: Three (3) capsules each day as a dietary supplement or as otherwise directed by a healthcare professional.

KEEP OUT OF REACH OF CHILDREN

For more information, contact our Client Services Department or one of our Technical Consultants at

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These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

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