Clinical Applications
» Supports Joint Structure and Function*
» Supports Proteoglycan Synthesis for Healthy Connective Tissue*
» Helps Protect Cartilage Cells*
» Supports the Body’s Normal Response to Inflammation*

JointRoX™ combines distilled methylsulfonylmethane (MSM) with naturally occurring glucosamine sulfate and chondroitin sulfate that are BSE and heavy metal free. These three ingredients work together to provide targeted support for healthy joint structure and function.*

Discussion

Glucosamine Sulfate is a naturally occurring amino sugar and a constituent of healthy cartilage. It is the most fundamental building block required for the biosynthesis of glycolipids, glycoproteins, hyaluronate, and proteoglycans. Although exact mechanisms of action are yet to be established, research suggests that glucosamine supplementation directly stimulates chondrocytes, incorporates sulfur into cartilage, modulates cytokine production, and helps protect against degradative processes.[1,2] Glucosamine sulfate is neither a pain reliever nor an anti-inflammatory compound; yet, in combination with chondroitin sulfate, it may be helpful in supporting normal joint function and the health of joint tissues.[3-7] Glucosamine does not appear to have an effect upon glucose tolerance tests or hemoglobin A1c readings.[6]

Chondroitin Sulfate is a primary proteoglycan and a major component of articular cartilage. It helps cartilage tissue retain water, which is needed for resistance and elasticity; it has protective effects on cartilage cells; and it supports normal joint width space. Proteolytic enzymes, such as elastase, collagenase, and proteoglycanase, accelerate the breakdown of collagen and proteoglycans.[8,9] An ample supply of proteoglycans may help balance this metabolic action. Experimental research suggests that chondroitin has cytokine-balancing properties and can also decrease the levels of reactive oxygen species and lipid peroxidation that affect cartilage cells.[10,11]

Methylsulfonylmethane (MSM) is a naturally occurring, sulfur-containing, water-soluble compound also known as DMSO2. MSM clinically appears to have the same benefits as its parent compound, DMSO. In vitro studies demonstrate that MSM modulates cytokine production and has antioxidant properties.[12,13] and MSM has been shown to remain in the blood for up to five times as long as DMSO.[14] In a 12-week, randomized, double-blind, placebo-controlled study on 50 patients, 3 g/d of MSM supported healthy knee joint function.*[15]

*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.
JointRoX™ Supplement Facts

Serving Size: 2 Capsules

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount Per Serving</th>
<th>% Daily Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloride (as glucosamine sulfate potassium chloride)</td>
<td>120 mg</td>
<td>4%</td>
</tr>
<tr>
<td>Potassium (as glucosamine sulfate potassium chloride)</td>
<td>120 mg</td>
<td>3%</td>
</tr>
<tr>
<td>Glucosamine Sulfate (as glucosamine sulfate potassium chloride)</td>
<td>750 mg</td>
<td>**</td>
</tr>
<tr>
<td>Chondroitin Sulfate</td>
<td>600 mg</td>
<td>**</td>
</tr>
<tr>
<td>Methylsulfonylmethane (MSM)</td>
<td>500 mg</td>
<td>**</td>
</tr>
</tbody>
</table>

** Daily Value not established.

Other Ingredients: HPMC (capsule), vegetable stearic acid, vegetable magnesium stearate, medium-chain triglycerides, and silica.

Contains: Shellfish (crab and shrimp)

DIRECTIONS: Take two capsules twice daily, or as directed by your healthcare practitioner.

Children and pregnant or lactating women should consult their healthcare practitioner prior to use. Do not use if tamper seal is damaged.

DOES NOT CONTAIN: Wheat, gluten, corn, yeast, soy, dairy products, fish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOS), artificial colors, artificial sweeteners, or preservatives.

STORAGE: Keep closed in a cool, dry place out of reach of children.

References


Additional references available upon request