Joint Rx™

Clinical Applications
- Promotes Healthy Cartilage Strength and Resilience
- Supports Optimal Cartilage Matrix Composition
- Enhances Proper Immune Cell Activity to Support Tissue Surrounding Joints

Joint Rx™ is a comprehensive joint and disc formula that combines pharmaceutical grade Glucosamine Sulfate and Chondroitin Sulfate with Methylsulfonylmethane (MSM) for healthy cartilage matrix composition, strong connective tissue and possibly joint comfort.¹ ²

All XYMOGEN® Formulas Meet or Exceed cGMP Quality Standards.

Discussion

Glucosamine sulfate, a chondroprotective agent occurs naturally in all human tissues, supporting or enhancing the synthesis of chondrocytes and of synovial fluid, inhibiting free radical damage and possibly promoting improved circulation in blood vessels leading to the joints. Specifically, glucosamine sulfate's physiological function appears to be stimulation of the manufacture of cartilage components and deposition of sulfur into the cartilage. However, its exact mechanism of action has yet to be established. Glucosamine sulfate is neither a pain-reliever nor anti-inflammatory compound, yet in combination with chondroitin sulfate it may be effective in patients with moderate-to-severe knee pain.¹ ² ³ Glucosamine does not appear to have an effect upon Glucose Tolerance Test or Hemoglobin A1C readings.⁴

Chondroitin Sulfate, a primary proteoglycan is found in most tissues throughout the body. Certain parts of the chemical structure of chondroitin create a strong electronegative charge that allows it to attract and retain a lot of water. The water retention guarantees cartilage resistance and elasticity. Proteolytic enzymes such as elastase, collagenase and proteoglycanase accelerate damage to joint tissues by breaking down collagen and proteoglycans. An ample supply of proteoglycans counteracts destruction. Chondroitin may also increase the synthesis of other kinds of proteoglycans that constitute the matrix and may partially inhibit the activity of elastase.⁵ ⁶ ⁷ In addition, it has anti-inflammatory properties and decreases the levels of reactive oxygen species.⁸ ⁹

Methylsulfonylmethane (MSM) is a naturally occurring, sulfur-containing, water-soluble compound also known as DMSO2. Although more studies have been done on DMSO, its parent compound, MSM clinically appears to have the same therapeutic benefits. In vitro studies demonstrate that MSM has anti-inflammatory and antioxidant properties.¹⁰ ¹¹ MSM has been shown to remain in the blood for up to five times as long as DMSO.¹² In a 12-week randomized, double-blind, placebo-controlled study on 50 patients with knee OA, 3g/day MSM produced significant decreases in WOMAC pain and physical function.¹³ (WOMAC is a self-administered 24-question assessment of pain, disability and joint stiffness in knee and hip osteoarthritis.)

Joint Rx™
Dosing

Four capsules daily. Obese individuals and those on diuretics may require higher doses. Although MSM may act in a shorter time, it may take 2-3 months of ongoing glucosamine/chondroitin supplementation for clinical improvement.14

References


Precautions:

Insufficient reliable information for use during pregnancy or lactation in children or very elderly. Patients on anticoagulants should be extremely careful. Side effects may include: mild/moderate G.I. symptoms, drowsiness, skin reactions and headache.11 Although glucosamine is from the exoskeletons of shellfish, allergic reaction seems unlikely16. Rat studies show low-toxicity of MSM; yet we don't know enough about long term use to know the extent of side effects. MSM can cross the intact blood-brain barrier;12 however, no known toxicity has been associated.

*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.