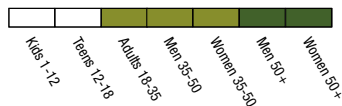




Procosamine®



ITEM# 131
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Every day your joints endure an enormous amount of stress from physical activity, including walking, lifting, and typing. Despite this heavy and constant use, we take our joints for granted and expect them to function trouble-free for several decades. The situation is worse for athletes and those who have high amounts of physical stress at work and at home. To help maintain healthy joints, USANA created **Procosamine®**, a product with a blend of glucosamine, manganese, and vitamin C—the building blocks for healthy cartilage.

Cartilage

Cartilage is the protective layer that cushions and lubricates joints. Over time, cartilage is gradually worn down due to normal physical activity. The body rebuilds the cartilage as it is worn and replaces shock-absorbing synovial fluid, so the joints are always protected. For various reasons, however, the production of new cartilage and synovial fluid can fall behind demand. Cartilage is rebuilt slowly if lesions to articular cartilage do not heal at the same rate as other tissue in the body, because of poor blood supply. If components of the substances used for cartilage repair are in short supply, recovery from damage is slowed even more.

Glucosamine

Glucosamine, an aminosugar, is an important precursor in the biosynthesis of cartilage. Specifically, it is a building block of proteoglycans—protein molecules with a high content of bound carbohydrate. Proteoglycans and collagen compose the majority of the cartilage matrix. Proteoglycans are essential for healthy cartilage because they bind the water that lubricates and cushions the joint. When the articular cartilage degenerates, joint pain and osteoarthritis may result.

In addition to its role as a biochemical precursor, glucosamine is believed to play a role in regulating cartilage formation and normalising cartilage metabolism by encouraging higher production of

collagen and proteoglycans. Glucosamine also stimulates synovial production of hyaluronic acid, which is responsible for the lubricating and shock-absorbing properties of synovial fluid.

Numerous double-blind clinical studies have shown the efficacy of glucosamine supplements in maintaining healthy cartilage, healthy joints, and full range of motion in the short-term.^{2,8} More recently, a three-year study was published showing that joint space increased in the glucosamine-treated group, while it continued to decrease in the placebo group indicating that the protective cartilage was better maintained in those who used glucosamine.⁹ Additional studies have demonstrated that glucosamine, taken orally, is well-absorbed and diffuses into tissues, including the articular cartilage.¹⁰⁻¹²

USANA's **Procosamine** uses glucosamine derived from plant source, which makes it now vegetarian safe.

Turmeric Extract and Curcumin

Turmeric, the powdered root of the plant *Curcuma longa*, has long been used as a spice (such as in curry) and as a natural food colourant.¹³ Turmeric contains curcumin and related compounds known as curcuminoids, which have significant antioxidant properties.¹⁴ In the past decade, curcumin, has been extensively studied by Western researchers and scientists for its antioxidant activity. Researchers continue to study curcumin for its anti-inflammatory property. However, traditionally, curcumin has had poor bioavailability, but with Meriva curcumin, in **Procosamine**, the bioavailability is 29-fold when compared to other standard turmeric extracts, allowing for better absorption and better intestinal stability.

Manganese and Vitamin C

Optimal joint health also involves additional important ingredients. Manganese is required for enzymes involved in the biosynthesis of proteoglycans. Vitamin C is essential for the reactions necessary to collagen formation.

The combination of turmeric extract with glucosamine hydrochloride, manganese and vitamin C represents a more comprehensive approach to joint health. Such powerful combination helps to maintain long term health of joint and cartilage.

Why Procosamine®?

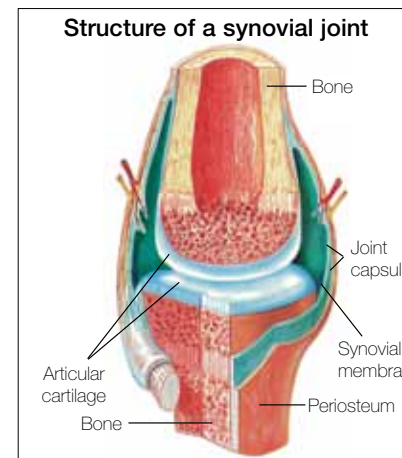
Procosamine is USANA's formula for joint health. We incorporate 1500 mg per day of high-quality glucosamine hydrochloride, which is vegetarian safe. Then we combine this with turmeric extract, vitamin C, manganese, magnesium sulfate and potassium sulfate for comprehensive joint health.

Procosamine is laboratory tested, potency guaranteed. Meets British Pharmacopoeia specifications for uniformity and disintegration where applicable.

Using Procosamine®

Take three (3) tablets daily, preferably with meals.

EACH TABLET CONTAINS:	
GLUCOSAMINE HYDROCHLORIDE	500 mg
CALCIUM ASCORBATE (EQUIV. 75 mg VITAMIN C)	91.5 mg
MAGNESIUM SULFATE - DRIED (EQUIV. 14.5 mg MAGNESIUM)	100 mg
POTASSIUM SULFATE (EQUIV. 31.43 mg POTASSIUM)	70 mg
MANGANESE GLUCONATE (EQUIV. 1.67 MG MANGANESE)	15.18 mg
CURCUMIN	14.85 mg



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Vitamin supplements should not replace a balanced diet.

USE ONLY AS DIRECTED. ALWAYS READ THE LABEL.

*IF SYMPTOMS PERSIST SEE YOUR DOCTOR OR HEALTH CARE PROFESSIONAL.



Optimizers
Micronutrition

Procosamine®

- Provides high-potency glucosamine hydrochloride to support normal healthy joints and cartilage
- Contains Meriva Curcumin for better curcumin absorption
- Assists in managing Osteoarthritis*
- Helps reduce joint inflammation and increase joint mobility associated with arthritis*
- Vegetarian safe

