

# Vegi-Glucosamine Complex

## with OptiMSM® and vitamin C

VA-087/ VA-982

Vegetarian formulation for joint and cartilage health

### Key Points:

- Vegetarian source of highly purified glucosamine for prevention/treatment of osteoarthritis
- Contains OptiMSM®, the only source of MSM 100% processed in the United States and highly purified through fractional distillation.
- Vitamin C in the form of calcium ascorbate ensures better stability and effectiveness.

### Indication:

For people experiencing joint pain associated with osteoarthritis.  
For the middle-aged, athletes or people with sports/work related joint injuries.  
To promote healthy joints and cartilage, which are less prone to injury.

### Description:

**Vegi-Glucosamine Complex** with OptiMSM® and vitamin C is a 100% pure vegetarian formula developed to deliver a scientifically advanced, comprehensive approach to the promotion of joint health, flexibility, and integrity.

While most sources of glucosamine are from shellfish, Vegi-Glucosamine Complex is as effective as animal-source glucosamine, and it is devel-

oped especially to treat and prevent osteoarthritis in individuals who prefer vegetarian diets, or those who may be allergic to seafood or want to avoid the risk of heavy metal contamination.

Aging, injury, and repetitive use of joints for sports or work related activities can stress the joints and cartilage, leading to their eventual breakdown. Vegi-Glucosamine Complex provides active ingredients to replenish the synovial fluid at the joints, ensures the structural integrity of joints and elasticity of connective tissue, as well as supports the formation and maintenance of collagen for skeletal health.

### Glucosamine

Oral glucosamine is commonly used for

Quantity: 120 | Dosage Form: Vegetarian Capsules

NPN: 80004860

### Ingredients (per 4 capsules):

Glucosamine hydrochloride (Regenasure®) ..... 1500 mg  
(from *Aspergillus niger*)

MSM (methylsulfonylmethane) (OptiMSM®) ..... 1000 mg  
Vitamin C (as calcium ascorbate) ..... 240 mg

### Non-Medicinal Ingredients:

Silicon dioxide, L-leucine, pullulan/hypromellose (capsule)

### Suggested Use:

Adults – Take 1 capsule four times a day with food or as directed by a health care practitioner. Use for a minimum of 4 weeks to see beneficial results.  
Avoid taking at bedtime.

the treatment of osteoarthritis. Since glucosamine is a precursor for glycosaminoglycans, a major component of joint synovial fluid, supplemental glucosamine can help to rebuild cartilage and treat arthritis, promoting mobility and lubricating joints, and relieving joint pain associated with osteoarthritis.<sup>1</sup>



## Methylsulfonylmethane (OptiMSM®)

MSM is a naturally occurring source of bioavailable dietary sulfur that is easily absorbed and used by the body. MSM plays a critical role in the structural integrity of joints and elasticity of connective tissue, and has been shown in numerous studies to relieve pain due to osteoarthritis, especially osteoarthritis of the knee.<sup>2</sup>

Glucosamine and MSM are often used together, to obtain their complementary and synergized effects in the promotion of joint health and relief of joint pain.

In one of many studies done on glucosamine and MSM for the treatment of osteoarthritis , it was determined that these two ingredients, individually and in combination, significantly improved signs and symptoms of osteoarthritis, although the most significant decrease in mean pain index was with the combination of glucosamine and MSM at week 12.<sup>3</sup> Also, the onset of analgesic

and anti-inflammatory activity was found to be more rapid with the combination than with glucosamine alone. The study demonstrated that combination therapy of glucosamine and MSM showed better efficacy in reducing pain and swelling and in improving the functional ability of joints than the individual agents.

## Vitamin C

Vitamin C is a potent antioxidant to neutralize free radicals. Vitamin C also plays a key role of reducing iron to its ferrous state, facilitating the hydroxylation of praline and lysine within collagen. This is essential for the maturation of collagen molecules and the formation of a mechanically robust cartilage matrix.<sup>4</sup>

Furthermore, there is clinical evidence that a high intake of antioxidants, especially vitamin C, may reduce the risk of knee pain development, cartilage loss, and disease progression in people with osteoarthritis.<sup>5</sup>

## Cautions:

Do not use if pregnant or breastfeeding. Consult a health care practitioner if symptoms worsen.

## References:

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2. Kim LS, Axelrod LJ, Howard P, Buratovich N, Waters RF. Efficacy of methylsulfonylmethane (MSM) in osteoarthritis pain of the knee: a pilot clinical trial. *Osteoarthritis Cartilage*. 2006; 14: 286-294.
3. Usha PR and Naidu MUR. Randomised, Double-Blind, Parallel, Placebo-Controlled Study of Oral Glucosamine, Methylsulfonylmethane and their Combination in Osteoarthritis. *Clinical Drug Investigation*. 2004; 24 (6): 353-363.
4. Goggs R, Vaughan-Thomas A, Clegg PD, et al. Nutraceutical Therapies for Degenerative Joint Disease: A Critical Review. *Critical Reviews in Food Science and Nutrition*. 2005; 45: 145-164.
5. McAlindon TE, Jacques P, Zhang Y, et al. Do antioxidant micronutrients protect against the development and progression of knee osteoarthritis? *Arthritis Rheum*. 1996; 39 (4): 648-656.

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**The information in this guide is for use by health care practitioners as a reference only.**