



**ARTHRIMIN^{GS™}
GLUCOSAMINE CHONDROITIN
WITH MSM AND HYALURONIC ACID
EFFERVESCENT DRINK**

UPC CODE 0 646420 2197 7

NPN # 80009749

**NATURAL HEALTH PRODUCTS
DIRECTORATE (NHPD) CLAIMS:**

Jamieson Arthrimin^{GS™} Glucosamine Chondroitin Effervescent Drink is approved for the following NHPD claims:

- Helps to relieve osteoarthritic pain
- A factor in the building of healthy cartilage

GENERAL INFORMATION

Cartilage is a tough, gel-like material that covers the ends of bones where they meet to form a joint. Cartilage allows bones to guide smoothly across each other during movement, and acts as a shock absorber for the joints.^{1,2,3} Over time, normal “wear and tear” in the body causes cartilage to crack and break away from the joints. As this protective coating wears away, the bones start to grind against each other during movement.^{1,2,3} This can result in a condition known as osteoarthritis (OA), which is characterized by pain, inflammation and stiffness in the joints; in particular, the joints of the hips, spine, knees, feet and hands.^{1,2,3} Primary OA is the normal degeneration due to decades of wear and tear and stress being placed on the collagen of the cartilage. Secondary OA is due to predisposing factors such as trauma and previous inflammatory disease. Natural health products that contain glucosamine can help relieve the pain caused by OA, and individuals with age-related degenerative joint diseases or acute joint injuries may also benefit from supplementation.^{1,2,3}

Glucosamine is a biological chemical that is naturally present in bone cartilage, where it forms the major cushioning ingredients of the synovial fluids of the joints and surrounding tissues.^{1,2,3} As its name indicates, glucosamine is composed of a sugar molecule (glucose) and an amine group. While most sugars come from dietary sources and are burned for energy, amino sugars are

mainly formed in the body and used primarily in manufacturing tissue components. As such, glucosamine helps form the proteoglycans that fit within the spaces in cartilage netting that is needed to restore joint structure.^{1,2,3}

Normal wear and tear during bodily functions means that tissues are constantly broken down (metabolized) and replaced or restructured. Glucosamine amino sugars are thus continuously in demand. With age, the body’s ability to produce glucosamine may become impaired, resulting in considerable dysfunction and pain. Therefore, glucosamine metabolism is an important factor to consider in the development of osteoarthritis. As a “building block” of cartilage, glucosamine can help to slow the development of mild to moderate OA by protecting and strengthening cartilage, allowing it to retain its cushioning effects and lubricate the joints. It also plays a role in preventing further joint damage, helps to reduce inflammation and supports pain-free movement of the joints.^{1,2,3}

Who can benefit from Glucosamine supplements?

Individuals that:

- Suffer from pain or stiffness in the knees, hands, feet or hips
- Experience a limited range of motion in the joints
- Have swollen or inflamed knees or fingers
- Experience arthritic back and neck pain
- Have recently injured or sprained a joint
- Are involved in any high intensity activities or high impact sports⁴
- Have a family history of any joint diseases

Arthrimin^{GS™} Glucosamine Chondroitin Effervescent Drink from Jamieson Laboratories is a natural approach to treating and impeding the progression of OA. Glucosamine is thought to be even more effective for relieving the pain and inflammation of arthritis than non-steroidal anti-inflammatory drugs (NSAIDs).⁵ In fact, while NSAIDs provide pain relief from OA, they do not address the fundamental problem of cartilage loss, and can also have serious side effects, such as internal bleeding or liver failure, with long-term use.⁵

Chondroitin is another substance that is naturally present in joint cartilage. Chondroitin acts like a liquid “magnet” to help attract fluid around the cartilage. This fluid acts as a spongy shock absorber in the joints and also helps to sweep nutrients into the cartilage. In fact, without this

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fluid, cartilage becomes malnourished, dry, thin and fragile. Chondroitin sulfate also inhibits various enzymes that contribute to the breakdown of cartilage in the body. It is therefore effective for increasing joint mobility and slowing cartilage loss. Chondroitin sulfate works synergistically with glucosamine against osteoarthritis pain.⁶ Chondroitin has been found especially effective for osteoarthritis of the knee^{7,8,9,10} and is as effective as taking pain medication.^{11,12}

MSM is a naturally occurring inflammation-fighting sulfur compound found in the body. It works with glucosamine to help relieve the pain associated with osteoarthritis of the knee.^{13,14} Hyaluronic acid is widely distributed in connective tissue, making it an effective non-sulfated ingredient for osteoarthritis pain.¹⁵

Most glucosamine products on the market are made from chitin, a substance found in shellfish such as lobsters and crab. This can be a concern for individuals with shellfish allergies. This formulation is unique because it is shellfish-free. Each packet contains 1,500 milligrams of glucosamine (hydrochloride and sulfate) derived from *Aspergillus Niger*, corn fermented process. As a result, it is suitable for individuals with shellfish allergies.

Arthrimin^{GS™} Glucosamine Chondroitin Effervescent Drink is a bioconcentrated, highly absorbable complex of natural, active compounds that prolong health, vitality and strength of joints, bones, cartilage and skin compromised by age, osteoarthritis or sports injuries.

Arthrimin^{GS™} Glucosamine Chondroitin Effervescent Drink is formulated from natural sources and is pharmaceutically tested to guarantee full potency and absolute clinical purity.

What makes Arthrimin^{GS™} Glucosamine Chondroitin Effervescent Drink from Jamieson Laboratories different...and why does that difference mean better?

- 1) It is gentle on the stomach as it contains no analgesics.
- 2) It combines four key nutritional compounds at therapeutic levels, in one dose.
- 3) It is the first formula in effervescent form with therapeutic level dosage.

- 4) Effervescent glucosamine has excellent bioavailability and is designed for those who prefer not to chew tablets or swallow capsules.
- 5) Only one packet a day is necessary to provide effective and long-lasting relief from joint pain and osteoarthritis.
- 6) Great-tasting Creamy Orange flavour!
- 7) Provides a safe, effective alternative to non-steroidal anti-inflammatory drugs for the treatment of OA.
- 8) Vegetable sourced shellfish-free formula is suitable for individuals with shellfish allergies.
- 9) Our premium formulations are manufactured using the 360 Pure process – a minimum of 360 quality tests that guarantee traceability and reliability of raw material, product safety, full potency and absolute clinical purity.

INGREDIENT INFORMATION

Available as 10 packets per carton.

Each 21g packet contains:

Glucosamine Hydrochloride (HCl).....	750 mg
<i>(Aspergillus niger</i> fermented corn)	
Glucosamine Sulfate (2KCl).....	750 mg
<i>(Aspergillus niger</i> fermented corn)	
Chondroitin Sulfate.....	1000 mg
<i>(from bovine trachea)</i>	
MSM (Methylsulfonylmethane).....	1000 mg
Hyaluronic Acid.....	300 mcg
<i>(Streptococcus zooepidemicus, fermentation)</i>	

EXCIPIENTS

Fructose, Citric Acid, Orange Flavour, Sodium Bicarbonate, Calcium Carbonate, Silica, Riboflavin, Custard Vanilla Flavour.

DIRECTIONS

Adults: In a glass of water (200 mL or 6 ounces) pour in contents of one pouch, allowing effervescent action to occur (about 30-45 seconds). Take 1 pouch daily with food. Use for a minimum of 3 months to see beneficial effects. Store between 15°C-25°C, away from children.

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INDICATED BENEFITS

- Relieves joint pain and osteoarthritis symptoms.^{1,2,3}
- Supports vital joint and bone health and pain-free movement of hands, wrists, hips, ankles, knees, neck and back.^{1,2,3}
- Factor in the building of healthy cartilage, protecting against the deterioration of cartilage.^{1,2,3}

NUTRIENT INTERACTIONS

Drug Interactions

None known when taken as directed.

Nutrient Depletions

None known when taken as directed.

Supportive Interactions

Niacinamide, SAME, boswellia, sea cucumber, cayenne cream (topical pain reliever).

WARNINGS AND PRECAUTIONS

Consult a health care practitioner prior to use if you are pregnant or breastfeeding. Consult a health care practitioner if symptoms worsen. Some people may experience mild gastrointestinal bloating, constipation or indigestion.

TOXICITY, ADVERSE REACTIONS, AND SIDE EFFECTS

Glucosamine appears to be safe for long-term use. Side effects, though rare, include gastrointestinal irritation with symptoms such as heartburn or nausea.

REFERENCES

1. Braham, R., Dawson, B., Goodman, C. (2003). The effect of glucosamine supplementation on people experiencing regular knee pain. *British Journal of Sports Medicine*, 37:45-49.
2. Towheed, T.E., Anastassiades, T. (2007). Glucosamine therapy for osteoarthritis: An update. *The Journal of Rheumatology*, 34(9):1787-1790.
3. Houpt, J.B., McMillan, R., Wein, C., Paget-Dellio, S.D. (1999). Effect of glucosamine hydrochloride in the treatment of pain of osteoarthritis of the knee. *Journal of Rheumatology*, 26(11):2423-2430.
4. Ostojic, S.M., Arsic, M., Prodanovic, S., Vukovic, J., Zlatanovic, M. (2007). Glucosamine administration in athletes: effects on recovery of acute knee injury. *Res Sports Med*, 15(2):113-24.
5. Ruane, R., Griffiths, P. (2002). Glucosamine therapy compared to ibuprofen for joint pain. *Br J Community Nur*, Mar, 7(3):148-52.
6. Huskisson, E.C. (2008). Glucosamine and chondroitin for osteoarthritis. *J Int Med Res*. Nov-Dec;36(6):1161-79.
7. Uebelhart, D., Thonar, E.J., Delmas, P.D., Chant Raine, A., Vignon, E. (1998). Effects of oral chondroitin sulfate on the progression of knee osteoarthritis: a pilot study. *Osteoarthritis Cartilage* 6(Suppl A):39-46.
8. Mazières, B., Combe, B., Phan Van, A., Tondut, J., Grynfeldt, M. (2001). Chondroitin sulphate in osteoarthritis of the knee; a prospective, double-blind, placebo-controlled multicenter clinical study. *Journal of Rheumatology*, 28:173-181.
9. Mazières, B., Hucher, M., Zaïm, M., Garnero P. (2007). Effect of chondroitin sulphate in symptomatic knee osteoarthritis: a multicentre, randomised, double-blind, placebo-controlled study. *Annals of the Rheumatic Diseases*, 66(5):639-645.
10. Uebelhart, D., Thonar, E.J., Delmas, P.D., Chant, Raine, A., Vignon, E. (1998). Effects of oral chondroitin sulfate on the progression of knee osteoarthritis: a pilot study. *Osteoarthritis Cartilage*, 6(Suppl A):39-46.
11. Bourgeois, P., Chales, G., Dehais, J., Delcambre, B., Kuntz, J.L., Rosenberg, S. (1998). Efficacy and tolerability of chondroitin sulfate 1200 mg/day vs chondroitin sulfate 3 x 400 mg/day vs placebo. *Osteoarthritis Cartilage* 6(Suppl A):25-30.
12. Bucsi, L., Poor, G. (1998). Efficacy and tolerability of oral chondroitin sulfate as a symptomatic slow acting drug for osteoarthritis (SYSADOA) in the treatment of knee osteoarthritis. *Osteoarthritis Cartilage* 6(Suppl A):31-36.
13. Kim, L.S., Axelrod, L.J., Howard, P., Buratovich, N., Waters, R.F. (2006). Efficacy of Methylsulfonylmethane (MSM) in osteoarthritis pain of the knee: a pilot clinical trial. *Osteoarthritis Cartilage* 14:286-294.
14. Usha, P.R., Naidu, M.U.R. (2004). Randomised, double-blind, parallel, placebo-controlled study of oral glucosamine, methylsulfonylmethane and their combination in osteoarthritis. *Clinical Drug Investigation* 24(6):353-363.
15. Sun, S.F., Chou, Y.J., Hsu, C.W., Chen, W.L. (2009). Hyaluronic acid as a treatment for ankle osteoarthritis. *Curr Rev Musculoskelet Med*. March 13 [epub ahead of print].

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