



OSTEOMOVE™ EXTRA STRENGTH JOINT CARE

Fast relief for chronic pain

JOINT PAIN AND ITS RISKS

Inflammation – fire in the body’s tissues – is identified by redness, warmth, swelling, and pain, and it is our first defence against infection, irritation, or other injury. However, chronic, low-level inflammation can result in diminished quality of life and the onset of degenerative diseases, such as atherosclerosis, rheumatoid arthritis, and intestinal disorders.

The pain and inflammation of degenerative joint disease can be relieved by over-the-counter remedies like pain medications and non-steroidal anti-inflammatory drugs (NSAIDs). But these do not slow down the progression of arthritis or other joint disorders, and they can have severe side effects. According to a 1999 study in the *New England Journal of Medicine*, NSAIDs are responsible for about 16,500 deaths each year in the US (Wolfe).

RECOVERY THROUGH NUTRITION

Nutritional supplements can provide a gentle, effective, natural alternative for relieving joint pain. Scientists have found that the nutritional approach can actually halt the degeneration of joints, while supporting healing and improving flexibility. Researchers have identified a number of nutrients that support long-term joint health by helping the body reduce painful inflammation, rebuild cartilage, and lubricate joints.

PERFECT FORMULA FOR PAIN

Natural Factors OsteoMove provides a full spectrum of nutrients that have been shown to reduce chronic and acute inflammation, and support the repair and recovery of joints and connective tissue. This fast-acting formula can produce results in as little as one week.

OsteoMove incorporates the key joint-building nutrients glucosamine, chondroitin, and MSM. It contains the InflammRelief™ complex, a proprietary fruit blend of seven fruit concentrates, which work synergistically to provide antioxidant power. OsteoMove also includes standardized extracts of boswellia and turmeric, two anti-inflammatory botanicals. This combination provides the body with the nutrients it needs to support and protect connective tissues, tendons, ligaments, and cartilage.

THE HEALTH BENEFITS OF OSTEOMOVE™

- Provides fast relief for chronic pain
- Reduces the risk and severity of inflammatory arthritis
- Improves long-term joint health
- Accelerates repair and recovery of connective tissue
- Improves hydration and nutrient flow to joint cartilage
- Inhibits free radical damage to cells in the joints

SUPPORTS JOINT HEALTH AND RECOVERY

Clinical trials have shown that inflammation can be reduced and joint health can be improved by providing the body with an array of important nutrients.

GLUCOSAMINE SULFATE

Glucosamine is made in the body and is a critical precursor in the formation of cartilage and other connective tissue. Research has demonstrated that glucosamine sulfate (GLS) supplementation can arrest the development of osteoarthritis if caught before the onset of irreversible joint damage. Supplementing the diet with GLS has been found to produce significant reductions in joint pain, stiffness, tenderness, and swelling, as well as increased joint performance. Even when researchers compared it to NSAIDs such as ibuprofen, GLS led to greater improvements in pain reduction and better joint performance (Bucci).

By contrast, studies using glucosamine hydrochloride found that it offered little relief, suggesting that the sulphur component of GLS has important clinical value. Sulphur is essential for keeping a healthy level of water in the joints. Normal cartilage contains 65 to 80 % water, which cushions the joint and helps in the distribution of nutrients. Since cartilage does not have a direct blood supply, it depends on water-borne nutrients that are transferred from the synovial membrane. If the cartilage becomes dehydrated, fewer nutrients can reach the cartilage cells, resulting in a compromised ability to rebound and thrive under wear and tear.

To achieve healthy hydration, our joints contain compounds called glycosaminoglycans (GAGs), which bind water inside the cartilage. However, GAGs must be highly sulfated in order to do their job. Reduced dietary sulphur intake may be an important causative factor in arthritis. Because rehydration is integral to healing, effective sulphur metabolism is imperative. This may explain why researchers have observed better results with GLS supplements than with glucosamine hydrochloride.

CHONDROITIN SULFATE

Chondroitin sulfate comprises 66 % of the body’s production of GAGs and is an essential component of connective tissue. As with GLS, chondroitin sulfate can redress cartilage dehydration, which is critical to arresting the degeneration of joints. Laboratory studies have found that GAGs, *in vitro*, can inhibit up to 60% of the enzymatic action of elastase and hyaluronidase. These enzymes break down elastin, an elastic fibre in connective tissues, and hyaluronic acid, which binds water to make joints resilient. (Conte).

Chondroitin sulfate is produced in the presence of glucosamine. However, there is a lag time before the chondroitin sulfate level is stable. In the compromised osteoarthritis joint, achieving normal cartilage metabolism is enhanced by providing ready-made molecules of chondroitin sulfate. In clinical trials, chondroitin sulfate supplementation has shown improvement of painful symptoms and limited joint function. Many osteoarthritis sufferers have found combined use of chondroitin sulfate and GLS beneficial.

OSTEOMOVE™ EXTRA STRENGTH JOINT CARE**MSM**

MSM (methylsulfonylmethane) occurs naturally in plant and animal tissues. However, it is destroyed by the heating of food, so most people do not receive enough MSM in their diet. MSM is known to relieve pain and inflammation and it can facilitate the healing of joints, since it acts as a sulphur donor (Jacob). Sulphur helps maintain and strengthen the structure of connective tissue in the joints by forming cross-linkages through disulfide bonds.

INFLAMRELIEF™ COMPLEX

The ability to decrease the breakdown of cell structures associated with trauma and degenerative disease is a key element of pain relief. OsteoMove contains InflammRelief™ Complex a proprietary fruit blend of seven fruit concentrates (standardized to 76% polyphenols) that work synergistically to provide antioxidant power to help reduce the damage to cells and tissues. Loss of cell and tissue function results in further inability to repair damage, leading to increased tendency to bruising, excessive inflammation, spasm, and joint stiffness.

Grape seed, raspberry, and blueberry contain proanthocyanidins, a class of polyphenols which have 20 times more antioxidant power than vitamin E, and 50 times more than vitamin C. Extensive research suggests that these polyphenols can bond with collagen, improving its elasticity and flexibility. Collagen is the primary protein of connective tissue. Grape seed extract has been shown to block cyclooxygenase-2 (COX-2) activity and other metabolites involved in the inflammation process.

Cranberry contains significant amounts of salicylic acid (the active component of Aspirin), which can reduce inflammation and improve circulation.

Strawberry contains anthocyanidins, ellagitannins, flavonols, such as quercetin and kaempferol, catechins, and phenolic acids.

Bilberry contains anthocyanins, which have been shown to reduce the risk of several degenerative diseases.

Pomegranate juice extract was found to help maintain joint integrity and function by blocking enzymes that contribute to cartilage degradation in osteoarthritis. Other studies show that pomegranate extract can also suppress inflammation and joint damage in rheumatoid arthritis.

ANTI-INFLAMMATORY BOTANICALS

The resin of the frankincense tree of India, *Boswellia serrata*, has been used in traditional Ayurvedic medicine for centuries. The therapeutic value of boswellia as an anti-inflammatory, anti-arthritic and analgesic treatment has been verified in research. Studies indicate that boswellic acids, the active ingredients of the resin, inhibit 5-lipoxygenase (5-LOX) and

HLE, which are enzymes that promote inflammation. Research also indicates that boswellic acids promote the synthesis of GAGs. In a randomized, double-blind, placebo-controlled study, *Boswellia serrata* extract was given to 15 patients with osteoarthritis of the knee. Another 15 received a placebo. After eight weeks, all patients receiving boswellia extract reported decreased knee pain, increased knee flexibility, and increased walking distance. The frequency of swelling in the knee was decreased (Kimmatkar).

Turmeric is an important medicinal and culinary herb in India and Asia. It has powerful anti-inflammatory properties due to its high curcumin content. Curcumin reduces inflammation by inhibiting production of the pro-inflammatory enzymes COX-2, LOX, and inducible nitric oxide synthase (iNOS). It is as effective as cortisone and some NSAIDs for treating acute inflammation, but without any negative side effects (Satoskar). Curcumin has also been shown to enhance tissue repair and wound healing.

COLLAGEN

A low dose of type II collagen helps suppress inflammation in arthritic joints. Chicken collagen has been used to treat pain associated with rheumatoid arthritis, osteoarthritis, gout, juvenile rheumatoid arthritis, and post-surgical joint pain. In a 42-day pilot study five female subjects (age 58-78 years) suffering from significant joint pain were given a supplement of 10 mg/day of undenatured type II collagen. The study found a significant improvement in pain, stiffness, and joint range of motion (Bagchi).

HYALURONIC ACID

Hyaluronic acid (HA) is found most abundantly in cartilage, synovial fluid, skin, and the aqueous humor in the eye. Research suggests HA may prevent the breakdown of natural cushioning barriers in joints. In osteoarthritis, HA might inhibit the release of enzymes that contribute to the breakdown of cartilage. A pilot clinical trial showed that daily supplementation with HA improved quality of life in adults with osteoarthritis of the knee (Kalman).

BORON

Boron is a trace mineral important for bone health and building muscles. Preliminary evidence suggests that boron might be useful for decreasing symptoms of osteoarthritis (Newnham).

MANGANESE

Decreased concentration of manganese in the synovial fluid of the joints has been linked to rheumatoid arthritis. Lack of manganese lowers arginase activity, resulting in higher levels of nitric oxide, which triggers inflammatory reactions in patients with

rheumatoid arthritis. Preliminary evidence suggests that manganese might be useful in combination with glucosamine and chondroitin for decreasing symptoms of osteoarthritis.

DOSAGE

Take two caplets daily preferably with meals or as directed by a health care practitioner. Pain relieving results can occur within one week. However, use for a minimum of four weeks to see most beneficial results.

SAFETY

Some people may experience mild gastrointestinal bloating, constipation, or indigestion; therefore it is recommended to take with meals.

Pregnancy and lactation: Not recommended for women who are pregnant or breastfeeding

Children: Not recommended for children

Drug interactions: If you are taking antiplatelet medication or blood thinners, consult a health care practitioner prior to use

Contraindications: If you have gallstones, stomach ulcers, a bile duct obstruction or excess stomach acid, consult a health care practitioner prior to use

Natural Factors OsteoMove™ provides a full spectrum of nutrients that reduce inflammation and joint pain, while supporting the repair and recovery of joints and connective tissue.

KEY REFERENCES

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