ARTHRITIS

MOVER AND A SHAKER

SPORTS AND JOINT INJURY

Osteoarthritis (QA) is characterized by joint pain and stiffness and restricted movement which could cause a decline in the function of the joint.^{4a, 5g} Regular physical activity is very important for overall health, and even more so for those who suffer from osteoarthritis, 4b, 5a, 5d But, it is not just age and weight that could cause joint damage, participation in some sports can injure joints through single or repeated impact, or weight applied by twisting, and these injuries can lead to post-traumatic osteoarthritis. 4a. 5

Regular exercise such as stationary bicycling, rowing, swimming, golf, jogging or racquet sports do not increase the risk for development of osteoarthritis in people with normal muscle strength and normal joints.^{5q} But, different types of exercise place distinct strain on certain joints. 5 While even normal joint use may cause joint injury and degeneration for persons with abnormal or misaligned joints. 5q, 5t

Joints have a limited capacity to repair itself after injury.^{5f, 8a} Cartilage itself is not supplied by blood vessels or nerves; therefore, damage to cartilage does not cause direct pain. Physical examination and x-rays also may not show the damage and these instances of joint dam age may go unnoticed.^{51,5m} This undetected injury may be one of the risk factors for developing posttraumatic osteoarthritis associated with participation in sports that expose joints to high levels of impact and weight applied by twisting.5n Posttraumatic osteoarthritis progresses over years to destroy the joint, and could cause severe pain, loss of mobility, and deformity.5

When choosing a product to support and maintain healthy joints, look for ingredients that could assist in relieving the symptoms as well as help to maintain the joint structure. Examples of these ingredients are glucosamine and chondroitin as they are important basic natural components of cartilage and synovial fluid. They are naturally formed by the body but can also be provided in a diet.8b MSN (or methylsulfonylmethane) occurs naturally in nature, is absorbed by marine life or from the soil by plants, including our usual fruits, vegetables and grains. 6a, 6b













MSM is either produced by marine and plants or can be synthetically produced with no difference in structure or safety of the molecule. 6a-d MSM can penetrate membranes and move though the body easily and accumulate over time when taken regularly. 6e, 6f MSM has the following benefits: 6g, 6h, 6i, 6

- Anti-inflammatory action
- Antioxidant action
- . Helps to protect cartilage
- · Helps to improve range and motion of joint
- · Reduces muscle soreness after exercise





Helps to support bone and joint health. maintains joint mobility and flexibility. 1,2,3



GLUCOSAMINE

Glucosamine is formed in the human body from glucose and is most abundant in connective tissue and cartilage (joints). Glucosamine can also be extracted from the skeletons of crabs, prawns, and lobsters, as well as from mushrooms. Glucosamine is needed by the body to produce the various components of cartilage and the synovial fluid (fluid in the joint space), 8d, 8e

Glucosamine has been proven to help: 8 Reduce pain Improve function and mobility of the joint Reduce progression of joint damage

Glucosamine is considered well-tolerated when used as a supplement, and during multiple clinical trials has shown the same risk for experiencing side effects as the risk with placebo (no active treatment). 7a, 7b

CHONDROITIN

Chondroitin sulfate is one of the natural components of the joint and is responsible for retaining water in the cartilage and also plays a part in the forming of new cartilage. It can be obtained from the cartilage of cows, pigs, birds and fish for supplementation, 8g, 8h, 8j The effect of chondroitin supplementation can be seen within 2-3 weeks, and remain active for up to a few months.81

Chondroitin helps to Relieve pain and inflammation. Improve function and mobility and Maintain the joint structure.8i,8i

When supplementation of chondroitin was studied, no increased risk for side effects were noted, and patients using chondroitin had less side effects that the patients using no treatment (placebo). 8c, 8i

ArthroGuard® EVERYDAY JOINT **PROTECTION & SUPPORT**

- Additional vitamins and minerals such as Vitamin C and Manganese contribute to health and wallness



ArthroGuard ® EVERYDAY JOINT REPAIR JOINT PROTECTION & SUPPORT



ArthroGuard ® ACUTE INTENSIVE

- Glucosamine is responsible for mobility and the smoot working of connective tissue and managing the sympton



ArthroGuard® RUB



References

- 1. ArthroGuard® Everyday Joint Protection and Support (Capsule) packaging insert
- 2. ArthroGuard® Acute Intensive Joint Protection & Support (Tablet) packaging insert.
- 3. ArthroGuard® Everyday Joint Protection and Support (Tablet) packaging insert.
- 4. Royered, Plomo G, Venonee N, et al. An updated algorithm recommendation for the management of knee osteoarthritis from the European Society for Clinical and Economic Aspects of Osteoporosis, Osteoarthritis and Musculoskeletal Diseases (ESCEO), Seminars in Arthritis and Rheumatism 2019;49:337-350.

 5. Buckwalter JA. Sports, Joint Injury, and Posttraumatic Osteoarthritis. J Orthop Sports Phys Ther 2003;33(10):578-588.
- 6. Jerosh J. Effects of Glucosamine and Chondroitin Sulfate on Cartilage Metabolism in OA; Outlook on Other Nutrient Partners Especially Omega-3 Fatty Acids. Int Journ of Rheumatol 2011; ArticleID 969012. 17 pages 7. Butawan M, Benjamin RL, Bloomer RJ. Methylsulfonylmethane: Applications and Safety of a Novel Dietary Supplement. Nutrients 2017;9(290) doi:10.3390/nu9030290.
- 8. Honvo G, Reginster J-Y, Rabenda V, et al. Safety of Symptomatic Slow-Acting Drugs for Osteoarthritis: Outcomes of a Systematic Review and Meta-Analysis. Drugs & Aging 2019;36(1):565–599

ArthroGuard is available without prescription at pharmacies nationwide.

ArthroGuard® Acute Intensive Joint Protection & Support. Each tablet contains: Glucosamine Sulphate KCl 500 mg, Chondroitin Sulphate 110 mg, MethylSulfonylMethane (MSM) 300 mg, Flaxseed powder 50 % (Linum usitatissimum) 66,6 mg, Curcumin Extract powder (Curcuma longae) 1,5 mg, Armorousard* Acute Intensive Joint Protection & Support. Each tabled contains: Guocasinne Sulphate IX.1 30 unit g. Taxweed power (Uxrum only letter and the fine for the first of Life Intensive Joint Protection and Support. Each tabled contains: Guocasinne Sulphate IX.1 and Joint Jo



