ARTIMIN 4

30 tablets

Active Ingredients
Hyaluronic Acid, Methylsulfonylmethane (MSM), Glucosamine, Magnesium, Chondroitin and Vitamin C

Hyaluronic acid is a substance naturally produced by the body in order to moisturize and protect tissues, in fact represents one of the main components of the connective tissue. From the chemical point of view, hyaluronic acid is classified as a glycosaminoglycan. The molecule is in fact formed by the repetition of long sequences of two simple sugars, glucuronic acid and N-acetylglucosamine. These substances are both negatively charged and when they join the strong repulsion between them gives rise to a linear molecule, flexible and highly polar. The great solubility in aqueous environment is important for ensuring the hydration of the tissues and at the same time protecting them from excessive stresses and tensions. At the same time the high affinity with other molecules of hyaluronic acid and with the other components of the extracellular matrix allows the formation of a dense and intricate network of high molecular weight. Hyaluronic acid is a critical component of the synovial fluid. This liquid is placed within the joints with the aim to protect the cartilage wear and excessive loads. The synovial fluid, in addition to amortize, provides nourishment to the cartilage, accelerating the healing process. The aging joint is associated with a decrease in the production of synovial fluid. An excessive drop of that substance, linked to traumatic events or advancing age, it increases the friction between the joint surfaces. Hyaluronic acid is particularly effective in the treatment and prevention of osteoarthritis, a degenerative disease that affects the cartilage.

Methylsulfonylmethane (MSM) source of biologically active sulfur, the main component of glycosaminoglycans and other structural molecules necessary to a good functionality of tendons, cartilage, skin and bones . Used as anti-inflammatory to treat joint diseases.

Glucosamine is an amino sugar present in the human body and used for the biosynthesis of hyaluronic acid in the synovial fluid and articular cartilage proteoglycan constituents. It exerts a trophic action against joint cartilage and promotes the fixation of sulfur in the synthesis of condroitinsulfuric acid. It also allows the synthesis of galactosamine, another amino sugar necessary for the biosynthesis of glucosaminoglycans. The main components of cartilage are glycosaminoglycans, water, hyaluronic acid, proteoglycans, molecules of chondroitin sulfate, collagen and elastin. All these components are held together in a matrix of collagen; together allow the cushioning and smooth sliding joints. In order to maintain these properties of the cartilage, a person needs a diet rich in nutrients and an ample supply of glycosaminoglycans,

chondroitin sulfate and proteoglycans, otherwise the cartilage degenerates more easily. Until a few years ago supplementation of vitamins and minerals for healthy joints was neglected, but today it is scientifically proven that about 75-80% of people treated with glucosamine show drastic improvements regarding pain and mobility. The studies that have evaluated the effectiveness in slowing the progression of joint damage were based on the results of radiographic useful to measure the joint space. Based on the results of these studies, a three year treatment with glucosamine would result in a protective effect, with a finding of no significant reduction in joint space of the knee in patients treated versus a statistically significant loss in patients who had received placebo. In conclusion, based on the data available today, glucosamine appears to produce an attenuation of pain and stiffness associated with mild to moderate osteoarthritis, with efficacy similar to that of non-steroidal anti-inflammatory, but with better tolerability. Glucosamine is therefore indicated in the treatment of primary and secondary arthritis, osteochondrosis, spondylosis, chondromalacia patella, frozen shoulder.

Magnesium contributes to the maintenance of normal function of bones and muscles.

Chondroitin It is a glycosaminoglycan (GAG) sulfate, composed of a chain of alternating sugars (N-acetylgalactosamine and glucuronic acid). It is normally associated with protein, to form a proteoglycan. A chondroitin chain can have over 100 sugars, each of which can bind sulphate ions in position and variable quantities. The chondroitin sulphate is an important structural component of cartilage, providing the latter almost all of the compressive strength. Associated with glucosamine, chondroitin sulfate has become a dietary supplement used for osteoarthritis.

Vitamin C increases the iron absorption; contributes to normal energy metabolism; contributes to the protection of cells from oxidative stress; contributes to the normal function of the immune system; contributes to the reduction of tiredness and fatigue.

Indications
Dietary supplement, usefull to fill nutritional deficiencies, vitamin C also contributes to the natural formation of collagen for the normal function of bones and cartilages

Directions for use
1 tablet per day or depending on the doctor’s advice

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