TECHNICAL DATA SHEET

MOUNTAIN PEAK NUTRITIONALS®

IMMUNE & WHOLE BODY SUPPORT

JOINT™

Helps maintain healthy cartilage and connective tissue. Supports joint flexibility and mobility.

Joint formula has been scientifically developed to facilitate the greatest opportunity for joint support. Regular use of Mountain Peak Nutritionals Joint formula will support joint mobility. Joint formula's ingredients work together to maximize the body's ability to promote cartilage regeneration. After reviewing many studies and interpreting the scientific data we decided to include 1500 mg of glucosamine sulfate as a daily recommended dosage. We don't include chondroitin sulfate because of its extremely large molecular size (16,900 daltons), which only allows for an absorption rate of 8-18% (of orally administered chondroitin sulfate) (4). Glucosamine sulfate has an absorption rate over 90%.

Supplement Facts

Serving size: 4 capsules

Servings per container: 30

Amount per serving		%DV
Vitamin C (as Ascorbic Acid and Ascorbyl Palmitate)	75 mg	83%
Zinc (as Zinc Monomethionine)	30 mg	273%
Copper (Bisglycinate Chelate)	1.5 mg	167%
Manganese (Citrate)	20 mg	870%
Joint Proprietary Blend:	2450 mg	*
Glucosamine sulfate, Boswellia serrata extract (resin), Bromelain, Devil's Claw extract (root) (Harpagoyphytum spp), Meriva® Turmeric extract (root), Collagen (Type II), Ginger extract (root) (Zingiber officinale)		

* Daily Value not established.

Other ingredients: capsule (gelatin, purified water), silicon dioxide
Contains: trace amounts of shellfish.
Meriva® is a trademark of Indena S.p.A

MERIVA® BIOAVAILABLE CURCUMIN

CALIFORNIA PROPOSITION 65 WARNING

WARNING: Consuming this product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov/food.

INGREDIENTS:

Glucosamine (Sulfate)

Glucosamine is an amino sugar, which is a constituent of cartilage proteoglycans. It is derived from marine exoskeletons or produced synthetically (we use the variety sourced from marine exoskeletons). Glucosamine is required for the synthesis of glycoproteins, glycolipids, and glycosaminoglycans (also known as mucopolysaccharides). These carbohydrate containing compounds are found in tendons, ligaments, cartilage, synovial fluid, mucous membranes, structures in the eye, blood vessels, and heart valves. Glucosamine can stimulate metabolism of chondrocytes in the articular cartilage and of the synovial cells in the synovial tissues. There is evidence that glucosamine has a benefit for bones and joints (1). Preliminary research suggests that glucosamine may play a role in slowing cartilage degradation (2). Some researchers think the sulfate moiety in glucosamine sulfate might be responsible for its effect on joints. Sulfate is required for articular cartilage glycosaminoglycan synthesis. If the sulfate is the active moiety of glucosamine sulfate, theoretically glucosamine hydrochloride would be less effective (3). We use 1500 mg of glucosamine sulfate per serving which is the amount clinical studies recommend for maximum daily benefit.

Boswellia Serrata

Boswellia (also known as Indian Frankincense) is an Ayurvedic herb from a large branching tree found throughout India and Nepal. It has an extensive history of use for connective tissue and joint support. The major constituents are boswellic acids (pentacyclic triterpenic acids) and essential oils. These plant acids have been found to display potent properties and may be beneficial in supporting soft connective tissues such as joints, tendons, and ligaments, especially after overuse or exercise (5). Boswellic acids may work with chemicals that are created by the body, which are the likely mechanisms for its metabolic properties. Boswellia extract, standardized to contain 65% boswellic acids, promotes healthy joint, connective tissue, and colon function (6).

Replaces all previous versions: 3.12.24

Devil's Claw
The most useful part of Devil's claw is the tuber, which contains iridoid glycoside constituents including harpagide and procumbide, but primarily harpagoside. Devil's claw is used because iridoid glycoside constituents seem to have a metabolic effect to support joints and connective tissues (7). Research indicates that harpagoside may support cellular function (8) (9).

Turmeric (Meriva®)
Turmeric's major active constituents are curcuminoids including curcumin (diferuloylmethane), a yellow pigment. Its reported activity appears to work with the chemicals released by the body (10). The body's absorption of curcumin is rather weak when ingested orally (11). Our formula contains Meriva which uses phytosome technology to combine curcumin with phosphatidyl-choline. Pharmacokinetic comparison studies show Meriva to have up to a 20-fold improvement in bioavailability, versus a standard 95% turmeric extract (12).

Bromelain
Bromelain is a general name for proteolytic enzymes obtained from the stem and fruit of the pineapple. Bromelain has been shown to reduce inflammation associated with exercise over-exertion (13).

Ginger
Ginger contains active constituents known as gingerol, gingerdione, and shogaol. These constituents seem to have a variety of beneficial properties. The constituents gingerol and shogaol are used for joint support by working at the cellular level (14). We used a ginger root extract that is standardized to contain 5% gingerols.

Type II Collagen
Type II collagen is excellent for cartilage health and addressing joint mobility with a daily 40 mg dosage. Collagen Type II makes up 50% of cartilage protein, and as levels of this type of collagen decrease with normal aging, Type II collagen helps replace this lost cartilage protein.

Vitamin C
Vitamin C is a very important nutrient in the formation of collagen. Collagen contains about one-third glycine and one-third proline and hydroxyproline. Vitamin C is required for the hydroxylation of proline in collagen synthesis. Hydroxyproline is almost exclusively associated with collagen (15). In a University of Sydney research study, Vitamin C has been shown to increase collagen and proteoglycan production (16). At the University of California, San Francisco, a study showed the synthesis of glycosamino-glycans increased 30-90% when Vitamin C was added to the culture (17). Oxidative stress mediated by reactiveoxygen species (ROS) has been implicated in tissue degeneration. Antioxidant nutrients such as Vitamin C and Vitamin E are well known to reduce or prevent oxidative stress. A Boston University study showed that patients with high intake of Vitamin C may reduce the risk of cartilage loss (18).

Manganese
Manganese is an essential nutrient that acts as a cofactor in the formation and maintenance of connective tissue and bone. Manganese is found in high amounts in the synovial fluid that provides cushioning in weight-bearing joints (such as knee, hip and ankle). Manganese citrate is a highly bioavailable form of manganese.

Zinc and Copper
Zinc is better absorbed when present with copper. Zinc and copper supplementation may be appropriate for patients with deficiencies (19). The zinc and copper containing enzyme super oxide dismutase (SOD) can interact with and neutralize free radicals and reactive oxygen species (ROS) (20).

Patients: Consult with your healthcare professional for the proper use of this formula.

For more information about this and other Condition Specific Formulas® please visit our website at:

mountainpeaknutritionals.com
email us: support@mtnpeaknutrition.com

MOUNTAIN PEAK
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