

Equine Catalyst

Joint Supplement

Nutrition Information

Serving Size	113 g
Total Servings	100

Guaranteed Analysis

Crude Protein	11%
Crude Fat	23%
Crude Fiber	20%
Ash	11%

Amount per Serving

Glucosamine	10000 mg
MSM	10000 mg
Hyaluronic Acid	100 mg
Chondroitin Sulfate	500 mg
Omega 3 Fatty Acids	16552 mg
Omega 6 Fatty Acids	5298 mg
L-Lysine	3000 mg
Betaine	2 mg
Biotin	15 mg
Calcium	188 mg
Choline	60 mg
Magnesium	401 mg
Phosphorus	721 mg
Potassium	810 mg
Sodium	22 mg
Zinc	124 mg
Copper	958 mcg
Folate	71 mcg
Iron	7001 mcg
Manganese	4050 mcg
Niacin	7652 mcg
Pantothenic Acid	1899 mcg
Riboflavin	166 mcg
Selenium	20 mcg
Thiamin	1606 mcg
Vitamin A	25025 IU
Vitamin B6	990 mcg
Vitamin B12	200 mcg
Vitamin C	2000 mg
Vitamin D3	8750 IU
Vitamin E	701 IU
Vitamin K	3 mcg

HIGH QUALITY

Produced frequently in small batches to maximize freshness.

HUMAN GRADE

Highest grade supplements.

Why expect less?

ADVANCED

Cold mill process prevents degradation of heat sensitive amino acids.

Value

Compare with any other Supplement!

Best Value on the market!

Performance

Essential Nutrients for Joint, Bone, Connective Tissue, Hoof, Immune System and overall Nutritional Health Requirements all in one product.



Joint Supplement

- **Glucosamine**
- **MSM**
- **Chondroitin Sulfate**
- **Omega 3 Fatty Acids**
- **Omega 6 Fatty Acids**
- **Biotin**
- **Hyaluronic Acid**
- **L-Lysine**
- **Vitamin A**
- **Vitamin B6**
- **Vitamin B12**
- **Vitamin C**
- **Vitamin D3**
- **Vitamin E**
- **Vitamin K**

Health
Recovery
Maintenance
Performance

Flax

Omega 3 Fatty Acid and Omega 6 Fatty Acid

One of the most Powerful Plant Foods on the Planet.

Flax based. No cheap "fillers".

Flax is one of the richest known sources of Omega-3 of any plant in the world. Flax seed naturally contains 40 percent oil, of which 55 percent is Omega-3 essential oil.

There is some scientific evidence to suggest that Omega-3 essential fatty acids can have a natural "calming effect" beneficial in managing those 'high strung' horses.

Improved coat, skin, and hooves (one of the main visual benefits of flax).

Antioxidant properties improve overall metabolic processes.

Improved Stamina

Joint lubrication and overall tissue health! Omega 3 EFA's anti-inflammatory properties may be useful in treating a number of autoimmune dysfunctions as well as in easing the symptoms (sore aching joints) of arthritis, or preexisting injuries.

Excellent addition/preventative to horses' diets who are pastured or stabled on sandy terrain and are at an increased risk of sand colic or impaction. Flax contains a high amount of insoluble fiber and soluble fiber which is very high in mucilage. Flax mucilage swells and takes on a gel-like consistency that traps and suspends sand, carrying it out.

High in Fiber

Immune Booster. Horses can become stressed during travel, competition, and stalling at strange places. Stress can decrease a horse's natural immune function and response which in turn may make them more susceptible to certain diseases and viruses.

Low carb. Heart healthy. Flax supplementation has been shown to aid in the management of the following equine disorders: Insulin resistance, Cushing's Disease, and Laminitis. Flax offers a 'good fat' to diets.

Flax is the starting point; everything else just makes it better.

Glucosamine

Supplementation with glucosamine sulfate has been shown to improve deteriorating joints and help prevent further damage. Halting ongoing damage can be very important for horse owners, since soundness issues and recurrent lameness tend to get worse over time.

In addition to the impact on deteriorating joints, glucosamine sulfate has also been shown to strengthen weakened and damaged tendons. A bowed tendon can put even the most fit horse out of commission for months, so the ability to prevent damage before it occurs is one of the most important potential benefits of glucosamine sulfate supplementation.

The ability to ease the pain and inflammation of arthritis is another significant advantage of glucosamine sulfate supplements. There are medications to treat inflammation in horses, but treatments like butte can have serious side effects when used long-term. Supplementation with glucosamine sulfate is thought to be just as effective at treating inflammation and pain – and much safer.

MSM

The supplement MSM is derived from DMSO or dimethylsulfoxide. DMSO is widely used in the horse industry to fight inflammation. MSM has multiple uses for horses. It is primarily thought of as an arthritis supplement and pain medication but has other actions as well. Boosting the immune system is also considered to be a benefit of MSM supplementation. The main actions of MSM for horses are to reduce inflammation and improve circulation.

Methylsulfonylmethane is primarily given to horses as a joint supplement to aid in the health of collagen and cartilage. Skin, coat and hoof supplements often contain added MSM for the sulfur. It may benefit a horse healing from an injury or suffering from chronic arthritic changes in its joints.

Anecdotally, MSM has been helpful for horses with Equine Protozoal Myelitis (EPM), back problems and epiphysitis, which is an inflammation of the growth centers in the joints of young horses. Allergies and gastrointestinal upsets are also sometimes aided by this supplement. In your horse's body, the compound splits into methionine and cysteine, two important amino acids.

Chondroitin Sulfate

Supports production and slows breakdown of cartilage. Improves joint comfort. Inhibits inflammatory mediators. Glucosamine and chondroitin sulfate have been shown in published equine cell research to work better together than either alone. Chondroitin sulphate works to enhance glucosamine. Chondroitin sulphate is a major part of cartilage and may support bones as they heal. It provides structure, holds water and nutrients, and allows other molecules to move through the cartilage. This is extremely important, as there is no blood supply to cartilage.

In degenerative joint disease, such as osteoarthritis, there is a loss of chondroitin sulphate as the cartilage erodes. It's important to remember that when administered as a supplement, the rate of absorption results for chondroitin sulphate can be low as it is a large molecule.

Biotin

Biotin is one of the water soluble B vitamins. Horses cannot produce this vitamin themselves so they need a source in the diet. Horses also receive some biotin via gut absorption after manufacture by bacteria in the intestinal tract. Biotin acts as a cofactor for many enzyme activities in the horse. It is needed for the production of keratin - the protein in both hair and hooves. Biotin also contributes to the production of collagen and elastin, which are essential components of healthy skin.

For use as a hoof supplement, it is suggested that supplements containing biotin also contain calcium, zinc, and methionine as a minimum. Lysine,

copper, vitamin B6, and omega 3 fatty acids all enhance the activity of biotin.

Hyaluronic Acid

Its structure is the simplest of all glycosaminoglycans and forms the backbone of proteoglycans (a form of protein.) It is found in the connective tissue and created in the synovial membrane by the chondrocytes (the only cells in cartilage.) It is essential for proper nutrient delivery.

Sodium Hyaluronate, has a very large molecular structure (even larger than chondroitin) which leads to extremely poor oral absorption. This means the dosage levels of HA products can be far too low to provide the body with the support it needs.

L-Lysine

Lysine is found in a wide variety of tissues, hormones, and cells throughout the body. Myosin and other muscle proteins contain large amounts of lysine. Proteins that require lysine include the collagens and elastins that make up bone matrix, tendons, skin, and articular cartilage. Keratin protein in hoof and hair also requires lysine. Inadequate intake of protein or required amino acids by horses may lead to reduced feed intake, body tissue loss, poor coat, and hoof growth and decreased growth and development of young animals. Using L-Lysine at times of stress is key to calcium absorption, boosting the immune system and supporting the body's production of hormones, enzymes and antibodies. Supplementing the immune system with L lysine can be very beneficial to optimal health and performance.

Vitamin A: One form of A combines with opsin to produce rhodopsin. Rhodopsin is the visual pigment that helps recognize the presence of light energy and transform it into a signal that travels the nervous system. This nervous system signal is then what allows the horse to see. Night vision
Vitamin B-12: widely used to improve appetite, avoid anemia and improve performance.

Vitamin E: The #1 antioxidant in the body, protecting individual cells every day. It is in every cell of your horse's body and unique in being able to cross into spinal cord, brain, liver, eyes, heart, skin, and joints. In addition to being an antioxidant, Vitamin E is a "potent anti-inflammatory when given in high levels," according to a University of Florida study.

Vitamin C: Vitamin C plays a pivotal role in neutralizing harmful free radicals. Because of its water-soluble nature, vitamin C can work both inside and outside the cell to combat free-radical damage. Vitamin C also helps by regenerating vitamin E. Besides its antioxidant functions, vitamin C is needed for collagen synthesis, hormone synthesis, conversion of vitamin D3 to calcitriol, bone calcification, and antihistamine control.

Recommendations for use:

Feed 1 level scoop (113g) once daily. If feeding twice daily, administer ½ level scoop (50g) twice daily with feed ration.

For Heavy performance, training and high demand conditions, Feed 2 level scoops (200g) once daily.

*Do not exceed 1.5 lbs. per day.



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