



ThorneVet Joint Support Formula

Formerly Arthroplex

Musculoskeletal support for dogs and cats

Supports the health of muscles and joints, assists in healing, and assists mobility in active and aging animals.

Comprehensive musculoskeletal support

Joint Support Formula helps optimize the normal function of joints and muscles, as well as providing nutrients and botanicals that are necessary for creating collagen, repairing damage, and maintaining a healthy inflammatory response.

Key Joint Support Features

- Provides the proven joint support of chondroitin sulfate, glucosamine sulfate, MSM, hyaluronic acid, and ascorbic acid.
- CurcuVet® curcumin phytosome, Boswellia, and bromelain help maintain a normal inflammatory response.



DL-Phenylalanine helps dampen the pain response.

Joint Support Formua – Special Ingredients

Glucosamine sulfate, chondroitin sulfate, and hyaluronic acid

Glucosamine and **chondroitin** are both natural components of cartilage. Numerous animal and human studies have examined the effect of giving these nutrients orally on joint health, and have demonstrated significant clinical benefit.

Hyaluronic acid is also a normal component of cartilage and joint structures, and has been shown to be a "chondroprotectant" – a substance that protects cartilage from damage.

DL-Phenylalanine

DL-Phenylalanine is a combination of two well-tolerated amino acids – **d-phenylalanine** and **l-phenylalanine**. Together, these two amino acids relax the musculoskeletal system by increasing the levels of endorphins – beneficial substances produced naturally in the body that cope with stress and pain – thereby calming stressed and painful muscles and joints. **DL-phenylalanine** does this by blocking enkephalinase enzymes, the class of enzymes that break down endorphins – thus providing a natural form of relief from pain and soreness in muscles and joints.

MSM

MSM (methyl sulfonyl methane) provides sulfur compounds for the formation of cartilage. A combination product containing **MSM**, **glucosamine sulfate**, and **chondroitin sulfate** was given to rats with experimentally-induced joint inflammation. The combination provided protection against cartilage damage when given short-term, and better protection when given long-term.

Vitamin C

Vitamin C is a powerful antioxidant that plays an essential role in joint health. Research suggests that vitamin C protects against cartilage damage by inhibiting the action of molecules that trigger joint inflammation – such as interleukin 1-beta. Vitamin C also serves a role as a co-factor in the body's production of collagen, the body's most abundant protein, and a major component in the growth and repair of the connective tissues that make up healthy tendons, ligaments, cartilage, and muscle.

Bontanical Extracts

Curcumin Phytosome

Curcumin, an orange-pigmented substance derived from turmeric root, has been shown in many animal and human studies to dampen inflammation and improve quality of life. **CurcuVet® curcumin phytosome** is the best absorbed and most clinically-researched curcumin product on the market.

Bromelain

Bromelain, derived from pineapple stems, dampens inflammation and has been shown to speed healing and resolution of bruising.

Boswellia

Boswellia, also known as Indian Frankincense, has been demonstrated in animal and human clinical studies to benefit joint structures and dampen inflammation. **Boswellia** reduces the amount of an enzyme regulating inflammation messenger molecules.



Active ingredients per 2.5-cc Scoop:	
Glucosamine Sulfate (as Glucosamine	
Sulfate Potassium Chloride complex)	225 mg
Ascorbic Acid (Vitamin C)	100 mg
DL-Phenylalanine	75 mg
Curcumin Phytosome (Curcuma longa	-
extract (root) / Phospholipid complex	
from Sunflower) (CurcuVET®)	50 mg
Chondrotin Sulfate (Avian)	50 mg
Methylsulfonylmethane	50 mg
Indian Frankincense extract (gum)	, i i i i i i i i i i i i i i i i i i i
(Boswellia serrata)	35 mg
Bromelain	35 mg
Hvaluronic Acid	10 mg



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