

# ANIMAL HIP & JOINT SUPPORT

## Healthy Hips & Joints for Animals

### Founded in Science

Eniva® Professional Strength Hip & Joint Support for Animals provides ingredients and dosages based on clinical research studies. This synergistic blend is designed to create an environment within the pet to help promote joint health and comfort.\* The all-liquid design is formulated with Eniva's Cell-Ready® technology which enhances fast delivery and absorption of nutrients into cell tissue. Research supported use of key ingredients show them to be effective in assisting with repair and maintenance of healthy joints and hips.

### HIP & JOINT SUPPORT HELPS TO PROMOTE

- Cartilage health\*
- Joint mobility\*
- Bone density\*
- Synovium health\*
- Joint comfort\*
- Tendon strength\*

### THE SCIENCE BEHIND HIP & JOINT SUPPORT

#### Glucosamine

Glucosamine is a small molecular building block used for the **synthesis of cartilage and joint lubrication**. Glucosamine Hydrochloride (HCL) and Glucosamine Sulfate are the two forms of glucosamine that have been extensively researched and shown to provide nutritional benefit.

According to convincing research, glucosamine plays a key role in **body repairs well as building cartilage**.\* By providing joints with this essential nutrient, glucosamine can help promote cartilage health.\* Research shows that it is absorbed into the body at a rate much more effectively than other "joint-promoters." In addition to its role as a building block for the synthesis of cartilage, it appears to play an additional role in the **production of joint synovial fluid**.

#### Chondroitin

Chondroitin sulfate is a glycosaminoglycan found in cartilage and bones. It is made up of alternating sequences of sulfated substances of uronic acid and n-acetyl-galactosamine. It is a key component of cartilage and its derivatives are **found in synovial fluid**.

At its most basic level, chondroitin can help cartilage by providing it with the building blocks it needs to repair itself. **Chondroitin is also believed to block enzymes that break down cartilage in joints**. Research indicates that **chondroitin increases the amount of hyaluronic acid in joints**. Hyaluronic acid is a **protective fluid that keeps joints lubricated**. Finally, chondroitin may contribute **anti-inflammatory support**. Although scientists are unsure of its exact mechanism, clinical trials have demonstrated its safety and efficacy in promoting joint health.

#### Type 2 Collagen

This powerful ingredient contains key components which can help support healthy skin and joint function. There are 14 different types of collagen in the body, and Type 2 is the most abundant in the joint matrix. Type 2 Collagen has more than 30 years of double-blind, placebo controlled studies indicating that it **helps promote synthesis of new cartilage in challenged joints**. Type 2 Collagen contains a high concentration of **chondroitin sulfate A**, which is a **powerful anti-inflammatory** and also supports joint tissue. Type 2 Collagen also contains a **newly discovered antioxidant proteoglycan called cartilage matrix glycoprotein (CMGP)**, which can help address oxidative damage to joints.



### High-Potency Professional Formula

- Safety
- Quality
- Effectiveness

### Concentrated Liquid Nutrients:

Glucosamine Sulfate  
Glucosamine HCL  
Chondroitin Sulfate  
Methyl-Sulfonyl-Methane (MSM)  
Type 2 Collagen  
L-Proline  
Vitamin C  
Boron  
Calcium  
Magnesium  
Manganese

\*These statements have not been evaluated by the Food and Drug Administration and are not intended to diagnose, treat, cure, or prevent any disease.

## L-Proline

L-Proline is an amino acid that is essential for the synthesis of collagen, the most abundant protein in animals. Collagen is the structural protein that comprises all connective tissues, including skin, tendons, ligaments, joints, bone and vasculature (veins and arteries). L-Proline has a significant role in providing the building blocks that help to stabilize and strengthen structural components.

## Methyl-Sulfonyl-Methane (MSM)

Methyl Sulfonyl Methane (MSM) is organic sulfur. It is found in the fluid and tissues of all living organisms. It is also present in a variety of raw foods but is easily lost during moderate food processing. MSM is drastically depleted in any foods that have been stored during shipping, refrigerated, or cooked. MSM bonds with moisture and is carried away when dehydration occurs. This is why stored, refrigerated, or cooked foods no longer contain MSM.

In the body, MSM is used to repair damaged cells, and to promote growth of healthy new cells.\* MSM also makes cell walls more permeable, allowing waste materials to pass through them.\* MSM is an important cell builder and binder of soft tissues in the body. Sulfur has a vital relationship to protein and is found in essential amino acids such as methionine and cystine. It is necessary for collagen synthesis, a vital component in both skin and bones, where it knits the minerals together and gives flexibility to them.\* It is also important in carbohydrate metabolism.

## Vitamin C & Grapeseed Extract

Vitamin C is required for the synthesis of collagen, an important structural component of blood vessels, tendons, ligaments, and bones. Numerous studies have indicated its role in the promotion of healthy joint tissue. In addition, Vitamin C deficiency can result in the destruction of oral gum tissue (primarily made up of collagen) that causes animals to lose their teeth. Vitamin C along with Grapeseed Extract serve as powerful antioxidants that protect the body from cellular damage caused by free radicals (unstable oxygen molecules that cause cellular damage).

## Manganese

Manganese is a mineral required in small amounts to manufacture enzymes necessary for the metabolism of proteins and fat, an important factor with pets.\* It also supports the immune system, blood sugar balance and is involved in the production of cellular energy, reproduction and bone growth.\* Manganese supports healthy body structures of repetitive motions and normal involuntary body movement.\*

Manganese makes up part of a molecule known as mucopolysaccharides. These molecules are used to form collagen, the strong, fibrous connective material that builds tissues throughout the body, including bone, tendons and cartilage, the rubbery cushioning found where bones meet.\* The mesh of collagen is the framework on which calcium, magnesium, and other bone-hardening minerals are deposited.

In addition, manganese has a definite impact on a mental activities, and if the pet's mental faculties are to remain well-balanced and under control rather than unruly and chaotic, manganese must be balanced and supplied in proper quantities.

## Calcium, Magnesium and Boron

Calcium, Magnesium and Boron are necessary nutrients that promote the formation of strong, healthy bone tissue. They also help improve bone density. Calcium and Magnesium play many critical roles as they work together in the formulation of adenosine triphosphate, the key form of biologic energy.\* Getting the correct balance of these important nutrients is critical for optimal physical functioning.\*

- **Boron** enhances the ability to absorb calcium and magnesium.\* Boron may also help convert Vitamin D to its active form, supporting the absorption of calcium.\* Boron supports healthy brain function and cognitive performance as well as strong bones and joints.\*
- **Calcium** is needed for strong bones and teeth, and in proper balance with magnesium, the pet can better absorb and assimilate the nutrients.\* The proper amount of magnesium allows calcium to migrate out of tissue and organs where it doesn't belong.
- **Magnesium** also plays a significant role in muscle health, normal calcium balance in organs and blood vessels, proper growth, cardiovascular electrical impulses, nerve transduction, as well as supports a healthy and happy disposition.\*



# HIP & JOINT SUPPORT

## PROFESSIONAL FORMULA

nutritional supplement

### ACTIVE INGREDIENTS Per 1 ounce (30 mL):

Glucosamine HCL/Sulfate	1650 mg
Chondroitin Sulfate	1200 mg
MSM (Methyl-sulfonyl-methane)	1500 mg
Type II Collagen	50 mg
L-Proline	50 mg
Manganese (manganous chloride)	25 mg

### PROPRIETARY BLEND 55 mg

Ascorbic Acid (Vitamin C), Boron (sodium borate), Calcium (calcium chloride), Grapeseed Extract, Magnesium (magnesium chloride)

**INACTIVE INGREDIENTS:** Purified water, sorbic and/or benzoic acids (preserve freshness).

### References

Data on file, Eniva Animal Health, 2008.

[www.eniva.com](http://www.eniva.com)

[www.enivaquality.com](http://www.enivaquality.com)



Please recycle.

© Eniva Animal Health  
Minneapolis, MN, 2008  
All Rights Reserved  
0652.09.30.08.REV.01

You want the best for your pet – so do we!™

\*These statements have not been evaluated by the Food and Drug Administration and are not intended to diagnose, treat, cure, or prevent any disease.