

Glucosamine

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This piece was printed in the July 2007 issue of [Dogs In Canada](#).



Hippocrates said, "Let your food be your medicine." This is the principle behind nutraceuticals - natural products that aren't drugs, yet have medicinal effects. The biggest selling nutraceutical in human medicine is glucosamine, and more and more owners are buying it in hopes it will help their arthritic dogs.

Like many nutraceuticals, glucosamine provides building blocks that the body can use to overcome disease - in this case, arthritic pain.

Glucosamine is not fast acting. It can take weeks or months before a positive effect becomes evident. But unlike drugs, which have an instant action, glucosamine has fewer side effects.

Glucosamine has been called a DMOA (disease-modifying osteoarthritic agent). Once in the body, this amino sugar is converted to glycosaminoglycan (GAG), a constituent of collagen and proteoglycans, both essential components of cartilage.

GAG also provides building blocks for the production of hyaluronic acid by the cells lining the joint. Hyaluronic acid retards the damaging effects of joint inflammation and enhances cartilage repair, resulting in less pain and more mobility.

Two forms are available - glucosamine sulfate and glucosamine hydrochloride (HCl). There is disagreement over which form is the best for dogs. Some sources claim the HCl salt is better absorbed, yet others claim equal absorption of both. Some claim the HCl form provides more glucosamine per unit weight. Studies show both forms to be effective in lessening the pain from degenerative joint disease in dogs, so it doesn't seem to matter which one is used.

An important question that often arises is whether or not glucosamine is safe to use in diabetics, both canine and human. One study in animals showed it could cause insulin resistance. This research is questioned because it did not resemble normal situations. The glucosamine was administered by constant intravenous infusion in relatively large amounts.

Many joint supplements contain glucosamine combined with chondroitin sulfate. The latter nutraceutical reduces cartilage breakdown by decreasing the activity of inflammatory enzymes that cause cartilage destruction. These two supplements work synergistically.

The most commonly accepted canine dose for glucosamine is 1,000 milligrams for each 70 pounds body weight daily.

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