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Glucosamine for Dogs: Uses, Side Effects, and Alternatives

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[arthritis](#), [joint health](#), [mobility](#), [senior dog](#)

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Many dogs suffer from [arthritis](#) as they age. This painful condition, which occurs in dogs and people, results when cartilage, the cushioning between the bones, begins to thin and wear away. As a result, the ends of the bones start to rub against each other, and you may notice your [dog starting to limp](#). Trauma, disease, or normal wear and tear that comes with use over years all may cause arthritis.

“While there is no cure for canine arthritis, some treatments can lessen pain and improve mobility,”
— Dr. Jerry Klein, Chief Veterinarian for the American Kennel Club.

What Is Glucosamine?

Glucosamine, a naturally occurring compound, is one of the more popular over-the-counter arthritis remedies. It is one of several natural substances, or nutraceuticals, that are known as chondroprotective agents, used in the treatment of arthritis in humans, dogs, horses, and other animals. In dogs, [glucosamine](#) is also often used to:

- Alleviate pain and joint wear caused by [hip dysplasia](#) or other structural changes
- Aid in the treatment of spinal disc injury
- Ease recovery from joint surgery
- Try to keep performance dogs in peak condition

Glucosamine [joint supplements](#) are said to alleviate the symptoms of joint damage by boosting the repair of damaged cartilage, specifically articular cartilage, or the moist, spongy material that forms

Feedback

a cushion between joints. Joint supplements are often used as an early intervention and throughout the progression of arthritis, since they're safe for long-term use in most patients.

"Cartilage plays an important role, and when damaged, it won't usually repair or duplicate itself on its own," says Dr. Klein. "So the bones of the joint may rub against each other, causing pain and inflammation."

Dr. Georg Ledderhose first identified glucosamine in 1876. Glucosamine is supplied in one of three forms: glucosamine sulfate, glucosamine hydrochloride, or N-acetylglucosamine. No one knows exactly what the mechanism of action is. However, glucosamine, an amino sugar, appears to improve the synthesis of glycosaminoglycans, one of the building blocks of cartilage.

Glucosamine is often used in conjunction with another natural substance, chondroitin sulfate, which is also aimed at stimulating cartilage repair. Chondroitin is made from cow or pig cartilage. It's also derived from the shells of crabs, oysters, and shrimp, or synthesized from plant sources in laboratories.

The [U.S. Food & Drug Administration](#) (FDA) regulates these products as dietary supplements, not drugs, and as such, they are not subjected to the same stringent FDA review and approval process as pharmaceuticals. Dietary supplements are evaluated for safety after they are on the market, mostly through "adverse event monitoring." Glucosamine has been used in veterinary practices in Europe and the U.S. for about 20 years.

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Is Glucosamine Effective for Dogs?

Starting in the 1980s, scientists began investigating glucosamine and chondroitin to try to prove whether they work. So far, there is still not a common consensus, and studies in humans have been inconclusive.

In 2012, an examination of studies in humans found that one form — glucosamine hydrochloride — had little effect. Another form — glucosamine sulfate — offered pain relief superior or equal to “the commonly used analgesic or non-steroidal anti-inflammatory drugs.” The scientists determined that “the question of the benefit of glucosamine treatment remains largely unanswered.” But, they

noted that, because the supplements have “low and rare adverse effects, it represents a viable option for the management of osteoarthritis.” They also expressed the opinion that it could be useful in combination with drugs and other natural products.

Unfortunately, there’s little in the way of veterinary research thus far. In 2007, scientists at the College of Veterinary Medicine, University of Georgia, Athens, conducted a review of 16 clinical trials of treatments for osteoarthritis in dogs. They reported their results in the [Journal of the American Veterinary Medical Association](#) and found that preparations containing glucosamine provided a “moderate level” of comfort, and were on a par with some prescription drugs.

“Glucosamine and chondroitin are commonly recommended by veterinarians as an alternative for treating osteoarthritis in canines unable to tolerate the adverse effects of [NSAIDs](#), or as add-on therapy,” concluded a [February 2017 article in Open Veterinary Journal](#). “Although glucosamine and chondroitin have benign adverse effect profiles, the clinical benefit of using these agents remains questionable. Further study is required to clarify the uncertainty around the clinical benefit of using these agents and quantify any treatment effect that exists.”



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Side Effects of Glucosamine for Dogs

There have been very few side effects observed in patients taking glucosamine, including:

- [Allergies](#) , specifically among those who are allergic to shellfish
- Fatigue
- Insomnia
- Excessive thirst and [urination](#) (when taken at high doses)

How Do I Give My Dog Glucosamine?

Before giving your dog glucosamine, you should consult with your veterinarian. They can help you identify your dog's specific condition and determine the correct dosage. Most available formulations of glucosamine for dogs are oral, such as [flavored tablets](#) , pills, [powders](#) , or [liquids](#) .

So what's the bottom line? If your veterinarian agrees, a glucosamine supplement may be worth a try to relieve your dog's pain and help boost their mobility.

[Read article: Benefits of Multivitamins for Dogs](#)

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