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CHONDROITIN

What is chondroitin?

Chondroitin sulfate is the major glycosaminoglycan (GAGS – see separate article found in this series) found in cartilage. It attracts fluid inside joints, helping to ensure adequate shock absorption and adequate nourishment of the tissues that line the joint. Like glucosamine, with which it is often combined in supplements, chondroitin may also inhibit the production of inflammatory mediators that are destructive to the joint.

Animal cartilage is the only dietary source of chondroitin, although it can be synthesized from its glucosamine precursor. Commercially available forms of chondroitin sulphate include bovine cartilage and shark cartilage. Shark cartilage supplements are not recommended because they possess no distinct advantage over bovine cartilage, and pose a significant threat to the integrity of the world's oceans.

Why recommend administration of chondroitin to my pet?

Any pet with degenerative joint disease and arthritis may benefit from treatment with chondroitin. It also has shown promise in injectable form for the treatment of degenerative disc disease (cartilaginous pads between vertebrae) and in the oral form as a method of replenishing the glycosaminoglycan layer that normally protects mucosal (mucous membrane of internal structures) surfaces such as the bladder and intestinal tract.

How much experience is there with the use of chondroitin in pets?

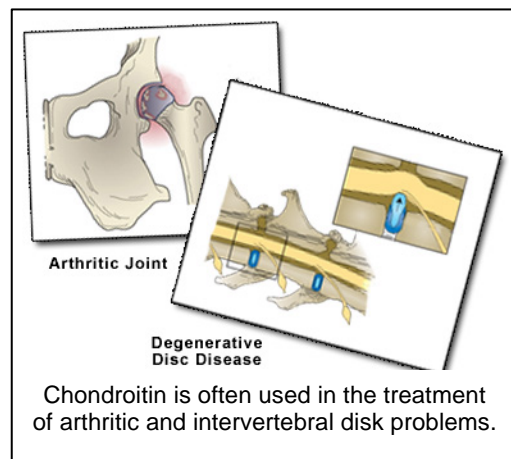
Clinical experience is extensive in the use of chondroitin in pets.

What species of animals are being treated regularly with chondroitin?

Horses, dogs, and cats are treated with chondroitin routinely.

How much research has been conducted on this supplement?

Several double blind placebo-controlled studies in humans demonstrate a beneficial effect of chondroitin in the management of pain associated with arthritis. A recent study at the University of Montreal, however, failed to demonstrate a significant benefit of a chondroitin nutraceutical on gait in 71 dogs with osteoarthritis over 60 days. Clinical experience likewise suggests that some dogs and cats may appreciably benefit from chondroitin administration and others not at all. It is difficult to anticipate which animals are most likely to respond. Given the potential for benefit and the extremely low risk of any adverse side effects, chondroitin supplementation is always recommended for animals with joint pain. Where a benefit is seen, doses of more expensive and potentially deleterious drugs may be reduced,



including the NSAIDs (non steroidal anti-inflammatory drugs) such as aspirin, carprofen and meloxicam. Because chondroitin protects mucosal barriers, it may not only enhance pain relief in animals administered NSAIDs, but help protect their intestinal tracts from ulcerations which are occasionally seen as a side effect of NSAID use.

How can my pet benefit from chondroitin?

Pets with arthritis may experience significant pain reduction, allowing improved strength and mobility in arthritic limbs.

How successful is chondroitin?

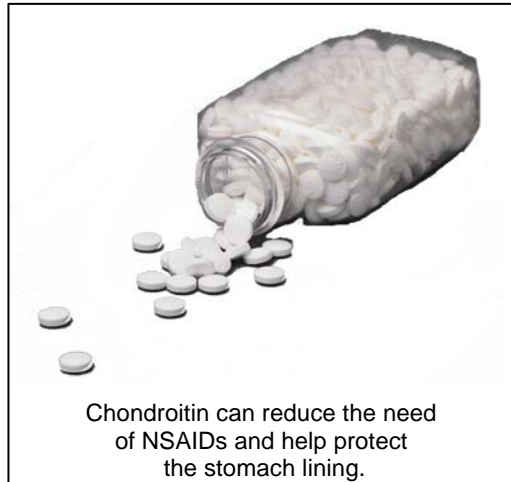
Chondroitin is one of the most commonly used nutraceuticals. Benefits from chondroitin supplementation seem to vary from animal to animal, but may be highly beneficial in reducing pain-causing lameness.

How safe is chondroitin?

Chondroitin appears to be very safe. Risk of adverse side effects from chondroitin supplementation is extremely low. No adverse effect on glucose (blood sugar) regulation in diabetics has been identified, despite the content of glucose in glycosaminoglycans such as chondroitin.

Where do I obtain chondroitin and do I need a prescription?

Your veterinarian may have preferred supplements that he or she will recommend. Pet owners are cautioned against buying supplements without knowledge of the manufacturer, as supplements are not highly regulated. This seems particularly true of glucosamine and chondroitin supplements, where several products were identified in one study as not containing the same amounts as stated on the label. A prescription is not needed for chondroitin. Research evidence in laboratory animals suggests that chondroitin dissolved in water before administration has a markedly better effect than when administered within a capsule.



Chondroitin can reduce the need of NSAIDs and help protect the stomach lining.

*This client information sheet is based on material written by Steve Marsden, DVM ND MSOM LAc DiplICH AHG, Shawn Messonnier, DVM and Cheryl Yuill, DVM, MSc, CVH.
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