

Nutraceuticals for Joint Support in Dogs with Osteoarthritis

Osteoarthritis (OA) is a progressive, degenerative disease of the joints. It is one of the most common chronic diseases that affect dogs. By some estimates, 20% of dogs of all ages are affected by OA.

What causes OA in dogs?



The causes of OA in dogs are many and varied. Genetic causes, predispositions, or a traumatic injury may lead to OA. Being overweight or obese increases the risk of OA by repetitive overloading of the joints and the inflammatory effect of body fat, leading to damage over time.

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Regardless of the specific causes of a particular dog's OA, the goal is long-term, lifetime management rather than a cure. A comprehensive, varied management approach to OA allows your veterinarian to target specific aspects of OA. Choosing several targets, rather than a single focus, for treatment therapies that complement one another creates a superior outcome. One common OA management tool is the addition of nutraceuticals for joint support.

What are nutraceuticals?

The word nutraceutical combines the words nutrition and pharmaceutical. A nutraceutical is a food or food product that reportedly provides health and/or medical benefits. Nutraceuticals are often presented as compounds that can protect against chronic disease. Nutraceuticals may contain isolated nutrients, dietary supplements, or herbal products.

Another definition of a nutraceutical is a fortified food or dietary supplement that provides health benefits.

Nutraceuticals are not subjected to the same testing and regulation as pharmaceuticals. For this reason, healthy skepticism is a good idea when considering nutraceuticals for your dog. Investigators are conducting clinical studies to evaluate the role of certain nutraceuticals in helping dogs with OA. Your veterinarian can advise you on nutraceuticals that have been evaluated and have yielded positive effects.

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What nutraceuticals can I consider to help my dog with OA?

Several nutraceuticals have shown positive results in managing OA. If your dog is a good candidate for any of these nutraceuticals, your veterinarian can help you make a good choice regarding a reputable manufacturer, dosage, and formulation.

One important strategy for interrupting the progression of OA is to choose a diet that has been evaluated in clinical trials to help dogs with OA. Good joint support diets are rich in the **omega-3 fatty acid eicosapentaenoic acid (EPA)**, which helps control joint inflammation and blocks the enzymes that break down cartilage. Research shows that high levels of EPA help to stop cartilage from degenerating. EPA can also be delivered as a supplement, either in liquid or capsule form.

There are several reputable diets for dogs that contain omega-3 fatty acids as well as other nutraceuticals, including Hills® Prescription Diet j/d®, Royal Canin® Advanced Mobility Support, and Purina Pro Plan JM Joint Mobility®. Your veterinarian will advise you on the best diet for your dog. Findings from human studies suggest that omega-3 fatty acids may provide benefits beyond joint support; however, more research needs to be performed to determine if the same benefits may apply to dogs.

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Green-lipped mussel from New Zealand is a source of another beneficial omega-3 fatty acid, eicosatetraenoic acid (ETA), glycosaminoglycans, and

other beneficial nutrients. Studies show reduced orthopedic pain with its use.

Boswellia, known as Indian Frankincense, is an herbal extract from Boswellia tree resin. It has anti-inflammatory effects and supports joint tissues. Early studies in arthritic dogs and humans have shown positive effects.

Undenatured Collagen Type II helps to reduce ongoing joint damage that occurs secondary to the immune system's overreaction to arthritic changes in the joint.

Microlactin is a milk protein extracted from the milk of cows that inhibits inflammation regardless of the cause of that inflammation. Research supports the use of microlactin in dogs with osteoarthritis. OA has an inflammatory component, which is why nonsteroidal anti-inflammatory drugs (NSAIDs) play an important role in managing OA. Microlactin works differently in the body than NSAIDs and corticosteroids, with no evidence of gastrointestinal (GI) irritation.

Incorporating microlactin into an OA management plan may help counteract the inflammation of OA while decreasing the side effects that are common with NSAIDs. This may allow your veterinarian to decrease or even discontinue the use of an NSAID. It takes about two weeks for microlactin to have maximal effects, so veterinarians generally overlap microlactin and the NSAID for 2 to 3 weeks before decreasing the NSAID dose.

Despite the popularity of **glucosamine/chondroitin** supplements, research to support definitive benefits has yet to be available. That said, low-molecular-weight chondroitin appears to have a positive effect in some dogs. Unfortunately, not all individuals will benefit from this supplement. It may be worth considering a trial treatment using a supplement with low-molecular-weight chondroitin.

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Avocado and soybean unsaponifiable (ASU) are extracted from avocado and soybean oils. ASU complements the effects of glucosamine and low-molecular-weight chondroitin. It appears to reduce inflammation involved in cartilage degeneration and has shown a positive effect in dogs with OA.

Can I get these nutraceuticals/supplements at a health store or human pharmacy?

Despite the interest and research in the role of nutrition and nutraceuticals in pets, a full understanding of these complex factors and relationships is still in its infancy. The preliminary science of nutraceutical use in dogs with OA is very exciting, but care needs to be taken to follow the data as much as possible.

Your veterinarian is your best partner when choosing the most appropriate nutritional profile and supplements for your dog with OA and can recommend where to purchase them. It is important to discuss supplement use with your veterinarian as some can be harmful to your dog, and some may interact with other medications your dog is taking.

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