

CHOOSING A GOOD BRAND OF ARTHRITIS SUPPLEMENT



First, what supplements are recommended for the treatment or prevention of arthritis? Here at Best Friends Veterinary Center we believe that any and every dog with arthritis should be on glucosamine and fish oil. Chondroitin, ASU, MSM & Boswellia are nice extras.

Beyond these basic, there are a whole slew of newer supplements that are popping up either on their own or in combination with glucosamine. These include turmeric, hydrolyzed egg shell membrane, vitaberry, Terminalia chebula extract, undenatured collagen. It's very difficult to know which of these are the most effective and safe, especially when considering combination products containing multiple ingredients. We are cautious about recommending or selling the next hot product because there is often very little research data about them. Why spend money on a product when you have no idea whether it will actually help your pet?

To make things even more confusing, some pets seem to do better on one supplement than another. Having large scale studies that would show, as an example, that 800 out of 1000 dogs improved on ingredient A whereas only 500 improved on ingredient B would tell us that it would make more sense to try product A first. However, most studies that have been done on nutritional products involve small numbers of dogs and short periods of time. Most of the time, we really don't have enough evidence to prove that product A is better than product B. Our recommendations are educated guesses.

We tend to use simple glucosamine products as preventives and combination products as treatments once pain is present. Our hope is that starting a pet on glucosamine and fish oil early will delay the onset and slow the progress of arthritis. Once joint inflammation or deterioration occurs, additional ingredients are more likely to be worth the money you will spend on them.

When we guess right, effective supplements can sometimes take the place of NSAID drugs such as carprofen or deracoxib. Drugs, however, will work more quickly, usually within a few days, and more reliably. It may take several weeks or even months for many supplements to reach their full effect.

If we are starting to give a supplement to a pet who is already on an NSAID drug we usually keep the medication dose the same for two months and then try cutting back to see what happens. Once a pet is on a supplement for a while, you may be able to lower the dose of prescription medication, even if your dog or cat is too sore to go off of entirely. A pet who is still sore when taking just an NSAID drug alone may feel significantly better when a supplement is added.

Keep in mind that arthritis is a progressive disease, so whichever is started first, supplement or prescription medication, most pets eventually end up taking both.

So, back to our original question: how does one choose what supplement to purchase? Ideally, you should not choose any brand of supplement you are considering unless you can answer the following questions:

Is there scientific evidence the ingredients are effective? It does not matter at all whether there are testimonials or letters attesting to a product's efficacy on the manufacturer's website – those can be faked. Product reviews can also be made up. You want a scientific analysis by an independent company or university that provides data on how well the supplement works.

FDA testing of drugs ensures we have at least some basic proof that a product is both effective and safe. Most nutritional ingredients have no such proof. We do our best to keep tabs on the information that is out there, so that you don't have to do scientific research on your own. We will recommend to you the ingredients we feel have the most published evidence for safety and efficacy.

Where is the product manufactured? (This may be completely different than the office address of the company listed on the bottle. You need to know if it was actually manufactured in the USA or somewhere else.) Even if the ingredients are OK going into a product, if the manufacturing plant is dirty or the equipment isn't well-maintained the product becomes adulterated. It's still not a guarantee, but you would probably feel more comfortable with a product made here than one that came from Mexico, India or China.

Where do the ingredients come from? Manufacture may be in the US but where did the ingredients come from? Mercury is a very common contaminant of fish oil products. Some parts of the ocean yield fish with lower tissue mercury levels than others, which is why we like products made from wild caught Scandinavian fish – the ocean is cleaner there. The source country is especially important for herbs, as we will explain further on.

Is the company a member of the National Animal Supplement Council? If so, the NASC seal should appear on the container. If the manufacturer has spent the money to join NASC and to meet the standards the council sets, there is a better chance the product is good. If the NASC seal isn't on the container we would usually not recommend the product.

Remember, there is no government regulation of supplements so any testing or standards are strictly at the whim of the manufacturer – meaning that many products are very poor quality or have extreme variations from batch to batch.

Has the product been evaluated by consumerlabs.com? Consumer Labs (consumerlabs.com) is an independent company that tests products for purity and potency. When testing human glucosamine products they found only two

brands out of forty tested that actually contained the ingredients listed on the label in the amounts listed. Chondroitin is especially costly and was frequently missing or in a much smaller quantity than that stated on the label. When testing veterinary products more than half failed.

Product labels won't reveal whether consumerlabs testing was done – you will need to research the product before you buy it. We have copies of the consumerlabs veterinary glucosamine product studies at our hospital. However, be aware that the tests in the glucosamine report were done years ago. Products and manufacturers come and go, so it's no longer the best yardstick to measure by.

Does the company test every ingredient or batch of supplement product for contaminants? How would the company know if an ingredient is safe if there is no testing? If the MSM in the product is 99% pure, for example, but the other 1% is arsenic, that's a problem! 1800PetMeds sells a fish oil supplement contaminated with PCBs, so your cat's arthritis may improve on it but then he or she might die of cancer or liver failure from the PCBs.

Few manufacturers create ingredients themselves; they purchase them from the open market. Companies that make supplements rarely have their own laboratories, nor do most outsource testing to a lab. There is often little assurance for the consumer that any non-drug product is safe.

The University of Guelph published a paper in 2013 detailing their findings of safety and quality problems in 44 herbal products, obtained from 12 different companies. The authors found that 60% of the products contained DNA from plant species not listed on the label, some of which were quite harmful.

Feverfew was a common extra ingredient found in human herbal supplements that was not supposed to be there. Feverfew can cause nausea, vomiting, diarrhea, abdominal pain and swelling in the mouth. It is also addictive, so if you stop taking it withdrawal leads to rebound headaches and muscle pain.

Many compounds examined in the study contained none of the herb listed on the label but instead contained cheaper substitutes. For example, one product labeled as St. John's wort contained only senna, an herbal laxative, which would thus produce diarrhea in unsuspecting consumers.

An expose called "Supplements and Safety," broadcast on Frontline on Jan. 19th 2016 led to New York's Attorney General to issue cease-and-desist letters to 13 makers of Devil's Claw products marketed for arthritis that were found to contain no Devil's Claw.

The U.S. attorney general recently directed four major retailers – Walmart, Target, Walgreen's and GNC – to halt the sale of certain herbal supplements after DNA testing failed to detect the plant materials listed on the labels of the majority of products tested. The tests also revealed DNA from contaminants not listed on the

labels. Several Echinacea products were found to contain mostly rice and buttercup DNA, if they contained any plant DNA at all. Target's valerian root contained garlic and wild carrot but no Valerian. Walgreen's St. John's wort consisted of garlic, rice and the house plant Dracaena. Walmart's ginkgo biloba had only dracaena, mustard, wheat and radish DNA.

Nature's Way and GNC have announced implementation of new testing standards but for most of these types of products there is absolutely no guarantee that you are getting what you are paying for. So far, there has been no comparable large study on herbal or supplement products marketed for animals.

Boswellia, a commonly recommended arthritis treatment for dogs, is an herb. If it came from China we can guarantee you it's contaminated with something. A study released last year on Chinese herbal products showed that every single herb tested had at least 8 different contaminants, including heavy metals, insecticides and herbicides. Most herbs had more than 12 contaminants found.

Because of problems like these we are extremely picky about where each ingredient comes from. Most veterinarians get Boswellia from Standard Process because they are a reliable source. I don't trust most companies to have a pure product.

Has there been any safety testing or research on each active ingredient in the product? Above and beyond the issue of contamination, is it going to be safe to give your pet this remedy every day for the rest of its life? A lot of folks have the misconception that "natural" remedies such as herbs are safer than prescription medications. Unfortunately, there is no FDA testing of herbs and supplements and many of these products are completely unsafe.

Is every ingredient present in the correct amount for the size of the dog? A forty lb. dog might need 750 mg of MSM per day. A glucosamine supplement containing 500 mg of glucosamine and 250 mg of MSM would provide a correct amount of glucosamine but only 1/3 of the amount of MSM needed. MSM, glucosamine and chondroitin are usually given once daily but Boswellia should be given 2-4 times daily. Therefore, giving it once a day would not provide a therapeutic dose of Boswellia – in which case, why bother giving it at all? In both of these instances, you would need to provide extra MSM or extra Boswellia. Few pet owners are going to actually do so. Most people just read the label and give the dose listed once a day. The more ingredients are contained in a single product the more likely that something is off in the dosing somewhere.

Is every ingredient in a bioavailable form? For example, cranberry extract can be helpful in prevention and treatment of certain types of urinary tract infections. However, the active ingredient in the cranberry can be easily damaged or destroyed during the processing of the cranberries. How the product is cooked and purified is important.

This is also true for glucosamine products. Glucosamine comes in two forms. Most human products contain glucosamine sulfate, which is absorbed poorly in dogs. Nutramax did the testing to figure out that glucosamine hydrochloride (HCl) is absorbed much better in dogs – 40% better. They also found that vitamin C enhances absorption of glucosamine, so Cosequin contains Vitamin C. Dasuquin, which has glucosamine, chondroitin and MSM, also contains another extract from avocados and soybeans that helps all three ingredients to work better.

Many times you can't even tell from a label what type of glucosamine is in the product, yet the dose may be off by 40% depending on which one it is. Depending on what else is inside the product there may be good absorption and efficacy or it may be very poor – it's not only the actual glucosamine that matters but what else is in with it.

In summary: There are very few products that meet all the specifications listed above. We stick with a few brands of supplements that we know have been tested for quality and potency. We avoid any brand or parent company we don't know. We sell mostly Nutramax products – Cosequin and Dasuquin – because they are the only company that has done any scientific testing on glucosamines to figure out what form of glucosamine works best, what extra ingredients enhance the absorption of the glucosamine, etc.

This whole can of worms also illustrates why we still rely so much on prescription medications for treating arthritis. With an FDA tested drug we know exactly what it is supposed to do, we know where it comes from and we know the safety profile on it. We also know it works, whereas there are no clinical trials on any herbs or most supplements to tell us whether they work and what side effects they might have. Just because it is a "natural" product doesn't mean it's safe!

Please be very cautious about what you buy and ask us for specific recommendations for your cat or dog. We are always happy to help!

Caring People Helping Pets



2082 Cheyenne Court, Grafton, WI 53024 • phone: 262-375-0130 • fax: 262-375-4196 • www.bestfriendsvet.com

