

SUPPLEMENT RECOMMENDATIONS

We've been touting the benefits of supplements for years now, including fatty acids, glucosamine and probiotics, but there has been controversy and confusion about the quality of supplements and the amounts needed for various problems. As research results have accumulated we have a more scientific basis for using them and are finally able to put together some firm recommendations for our clients.

Omega 3 fatty acids reduce inflammation and can treat, prevent or delay the onset of inflammatory diseases, including arthritis, allergies, cancer, kidney disease and heart disease. **We highly recommend supplementing these for all pets at all ages.** The specific Omega 3 fatty acids that dogs and cats benefit from are EPA and DHA. The recommended amounts are 40 mg/kg of body weight of EPA daily and 25-30 mg/kg of DHA daily. A 50 lb dog needs about 1000 mg of EPA per day.

The standard amount of Omega 3 fatty acids in a 1000 mg fish oil capsule is only 180 mg of EPA and 120 mg of DHA. Many supplement labels do not list the exact amounts of specific fatty acids. You need to look for a brand that does. We sell some good ones here at Best Friends, brands that have high amounts of EPA & DHA. If you just purchase a bottle of standard 1000 mg capsules for a 60 lb dog you would need to give 7 capsules per day! In contrast, the Omega FF capsules that we sell have 540 mg of EPA per capsule so you would need to give only 2 per day. Nature's Bounty, a common human fish oil supplement, has 390 mg/capsule. Costco sells a large fatty acid supplement that contains 700 mg of EPA, so you would give 2 per day of those.

Unlike OTC glucosamine products, which are often of very poor quality, generic brands of fatty acid supplements got pretty good reviews from consumerlabs.com. We don't want you to buy OTC glucosamine in most cases but it's OK to buy human fatty acid supplements for use in dogs and cats. There are some exceptions; most notably, OM 3 capsules for cats from 1-800-PetMeds contain dioxin-like PCBs – toxins you don't want your cat ingesting!

If you feed a pet food that contains EPA or DHA you can count the amount in the food toward the total needed. For example, Hill's J/D, a diet made for arthritis, contains 390 mg of EPA per cup of food. A dog eating 3 cups of food a day would be getting almost 1200 mg of EPA and wouldn't need a supplement at all. Pet food companies are not required to list specific amounts of ingredients on the label but you can often find the fatty acid content of the food online, or ask us.

Many companies do not have their diets analyzed and

Body weight	40 mg/kg EPA dose	30 mg/kg DHA dose
10 lb	200 mg	150 mg
15 lb	300 mg	200 mg
20 lb	400 mg	300 mg
25 lb	500 mg	400 mg
30 lb	600 mg	400 mg
35 lb	700 mg	500 mg
40 lb	800 mg	600 mg
45 lb	900 mg	700 mg
50 lb	1000 mg	800 mg
60 lb	1200 mg	900 mg
75 lb	1500 mg	1200 mg
90 lb	1800 mg	1400 mg
100 lb	2000 mg	1600 mg

tested or they may make ingredient substitutions that change the food from batch to batch – if you can't get an accurate number it's best to assume the food has no EPA or DHA. It is not harmful to give extra. (Pet food manufacturers who make high quality diets know exactly what is in them, do not make ingredient substitutions and have done

feeding trials on their foods. Fancy labels and expensive brands don't always mean the food in the bag is above average. [Visit our website to view our videos on pet nutrition.](#))

Just because a food has fish in it does not mean it has large amounts of Omega 3 fatty acids. Salmon steak contains almost none – the fatty acids are in the fatty parts of the fish, not the muscle. No one seems to know the fatty acid content of a sardine, so if you want to give your cat sardines to provide fish oils we can't tell you if that works or how well. You may have heard that flax seed contains fatty acids – it does, but dogs and cats cannot digest flax seed to get the oils out of it, so for pets it's not beneficial at all.

In summary, if your pet is getting plenty of fatty acids, either in the diet or as a supplement, he or she is likely to be healthier and live longer!

Glucosamine is anti-inflammatory in the joints, so it helps to prevent arthritis. **Glucosamine supplementation is recommended for all large breed adult dogs, all senior dogs and cats and all pets with problems that would predispose them to arthritis** – hip dysplasia, luxating patellas or a history of an injury to a joint, such as a dislocated hip. This is because glucosamine works best as a preventative. 90% of pets have arthritis visible on x-rays by age 12. The key is to start pets on glucosamine early to prevent or slow the development of arthritis. Arthritis is coming for almost every pet sooner or later – our goal is to head it off at the pass.

There are several reasons to start large breed dogs on glucosamine sooner. Dogs already taking glucosamine before they tear their cruciate ligament and have knee surgery recover much better than dogs who were not taking any. A torn ACL is the most common orthopedic injury of large breed dogs so this is a significant risk. Large dogs also tend to have worse arthritis that begins earlier than in small or medium size pets, so we need to think about arthritis development sooner. Lastly, large breed dogs have higher risk for hip dysplasia.

We are aiming for 50-250 mg of glucosamine HCl (not glucosamine sulfate) per day for a cat, 500 mg for a medium dog and 1000 mg for a large dog. Other anti-inflammatory ingredients that add to glucosamine's effectiveness include chondroitin, MSM and ASU. Vitamin C aids in absorption of the glucosamine from the intestinal tract. You may see any or all of these ingredients listed on a product label along with glucosamine. Glucosamine sulfate is not absorbed very well by dogs and cats, which is why you need the HCl form. Many human product labels don't declare which form the glucosamine is in, one of the many reasons not to buy these products.

As with fatty acids, if there is glucosamine present in the food you are feeding you can decrease the amount you are supplementing – but most OTC pet foods contain very little glucosamine. To get a significant amount from a food you need to feed a prescription diet made for arthritis. There are three prescription arthritis diets that contain lots of fatty acids but only Royal Canin's Mobility diet contains a significant amount of glucosamine as well.

Generic glucosamine supplements tend to be low quality. Many of them do not actually contain the ingredients or the amounts listed on the label. Chondroitin is a more costly ingredient and is especially likely to not be present in a sufficient amount to be helpful. Consumerlabs.com has done extensive testing on both human and pet supplements – just a few of the human brands, out of 60 tested, actually contained what the label said they did. Because of this poor track record we are very specific in our brand recommendations for these products.

Lastly, let's talk about **probiotics**. A probiotic is a capsule, paste, granule or treat that contains live bacteria. The idea is to supply plenty of the kinds of bacteria that are beneficial for our intestinal health and the function of our immune systems. Cats and dogs in the wild eat lots of live bacteria when they consume the internal organs of their

prey. Processed pet food doesn't contain probiotics. Most pets don't need probiotics but for pets with diarrhea or many immune-related diseases a probiotic supplement can be very helpful. There are far more immune system cells in the gastrointestinal tract than anywhere else in the body. The right probiotic can help not only the digestive system but the whole immune system to function better. It is usually not harmful to give probiotics to pets that don't need them but there are some problems that might be made worse by them. We usually recommend you put your dog or cat on probiotics only for treating specific problems for which we know they are helpful.

When we are using probiotics to treat diarrhea we use a standard packet of FortiFlora or an individual Provable treat per day. A packet of FortiFlora contains 758 million CFU (colony forming units) of bacteria. That sounds like a lot but for immune system stimulation we are aiming for 5-15 billion! To modify the immune system to treat chronic or recurrent diseases such as upper respiratory infections in cats, urinary tract infections, certain cancers or allergies we need to use a much larger number of bacteria.

There are only a few brands of probiotics that effectively deliver these high numbers of bacteria. The two that we use are VSL#3, which comes in packets which can be mixed with water or tuna. Each packet contains 458 billion CFU of beneficial bacteria, so a packet lasts many days. Provable capsules contain 5 billion CFU per capsule. A cat or small dog would get 1 capsule daily and a larger dog 2-3 capsules.

Most brands of probiotics are very poor quality, much like glucosamine products. Many contain no live bacteria at all - and the bacteria are of no benefit unless they are alive. Pet food processing destroys bacteria (that's how bad bacteria such as Salmonella are controlled), so if a pet food label touts probiotics on the label you should ignore it. There are no pet foods today that contain viable probiotics because no one has figured out how to keep the bacteria alive in or on a nugget of dry dog food. Please use only specific products recommended and sold by us.

Supplements for seniors: More and more pets are living to advanced ages nowadays because of advances in preventative care. Older pets are prone to many of the same disease problems as people are, including a decline in the function of the brain. Most elderly dogs have at least a few signs that their brains aren't as sharp as tacks anymore, including changes in sleep/wake cycles, confusion, anxiety or loss of bowel or bladder habits.

There are several supplements that have been found to slow age-related deterioration in the brain. We recommend starting on at least one of them by age 12-13. In people with Alzheimer's disease, the first early signs of deterioration in the brain begin many years before symptoms appear. The same is true in dogs and cats. In dogs we know that the changes that will eventually cause senility begin at about age seven. These supplements are not inexpensive so we don't want to start them too early but if we wait too long the effects won't be as good. These supplements do better at maintaining what function is already there than they do at reversing serious changes that have already occurred. Senilife, Neutricks, SaMe and Hill's B/D diet are among the choices we may recommend for your aging pet.

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