

# Nutraceuticals and Their Effects on Joint Health

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Nutraceuticals are defined as naturally occurring supplements that are thought to have a positive effect on an individual's health. These supplements encompass a wide variety of substances including Glucosamine, Chondroitin and Eicosapentanoic Acid (EPA). These three compounds are specifically listed as they are well known supplements that have proven through research in humans and animals to have beneficial effects on skeletal joint health. If you are interested in giving any kind of nutraceutical or supplement, they should come from a reputable source. A recommended daily amount can be given based on the weight of your pet.

## Glucosamine sulfate

Composed of glucose, a sugar, and an amino acid called glutamine. Glucosamine is needed for the formation and repair of cartilage in the body. It can be reproduced using a component found in shellfish such as crabs and lobster or, less commonly, corn and is often recommended for people and animals with osteoarthritis. It is taken orally and comes in varying strengths. Many Glucosamine supplements that are manufactured for companion animals are flavored and can even come in the form of treats so as to make them easier to give. The daily dose for each animal is usually based on body weight and may or may not be combined with other supplements such as Chondroitin sulfate or MSM (Methylsulfonylmethane). Please find our recommendations in the table below:

Weight of pet	Dosage Recommendation/day
less than 10 pounds	250 mg
11-25 pounds	500 mg
26-50 pounds	1000 mg
51-100 pounds	1500 mg
greater than 100 pounds	2000 mg

## Chondroitin sulfate

A substance called a glycosaminoglycan that is one of the components of cartilage. Chondroitin is the substance that provides elasticity and nutrients to cartilage. In human studies, taking Glucosamine and Chondroitin orally has not shown an increase in their presence in joints with osteoarthritis however those taking these supplements have had less discomfort when compared to those taking placebo compounds. Our recommendations are listed in the table below:

Weight of pet	Dosage Recommendation/day
less than 10 pounds	200 mg
11-25 pounds	400 mg
26-50 pounds	800 mg
51-100 pounds	1200 mg
greater than 100 pounds	1600 mg

## Eicosapentanoic Acid (EPA)

EPA is a component of fish oils that has been found to be anti-inflammatory in nature by interfering with enzymes that cause the joint to deteriorate. It is commonly listed on the side or back of packaging for fish oils along with another component called DHA. EPA has been found in research with humans to decrease joint pain and stiffness and in some cases even allow for a reduction in the amount of medication needed to control joint pain. Fish oils are commonly used in conjunction with other supplements as well as medications to allow for the use of multiple modalities to help control discomfort from osteoarthritis and provide a greater quality of life for our patients. Our recommendation is to give 20mg per pound of body weight of the EPA omega-3 fatty acids.