

## Glucosamine Chondroitin Combination

### What is glucosamine/chondroitin?

Glucosamine/chondroitin combination (brand names: Cosequin<sup>®</sup>, Dasuquin<sup>®</sup>, Dasuquin Advanced<sup>®</sup>, Glycoflex<sup>®</sup>, NutriVet<sup>®</sup>, Next Level<sup>®</sup>, AniFlex<sup>®</sup>, Phycos<sup>®</sup>, Restor-A-Flex<sup>®</sup>, OsteO-3<sup>®</sup>, Arthri-Nu<sup>®</sup>, ProMotion<sup>®</sup>, Seraquin<sup>®</sup>, Oste-O-Guard<sup>®</sup>, Caniflex<sup>®</sup>, and Equi-Phar Flex<sup>®</sup>) is a nutritional supplement used to treat osteoarthritis in dogs, cats, and horses, as well as feline lower urinary tract disease (FLUTD) in cats.

Glucosamine acts as a mild anti-inflammatory and is used by the joints to make cartilage components and by the urinary tract for protection.

Chondroitin inhibits destruction and promotes production of cartilage components. Sometimes these are used in combination with other joint supplement nutrients.

Dietary supplements are substances that can be used to supplement the diet, such as vitamins, minerals, amino acids, herbs, botanicals, enzymes, and probiotics. While many supplements are sold over the counter, they still contain ingredients that have biological effects that should be managed by your veterinarian. Follow your veterinarian's directions and cautions very carefully as their directions may be significantly different from those on the label.

There are differences in how countries regulate supplements. In the United States, these substances are not as vigorously regulated by the FDA as other medications, which means they can be sold without the manufacturer proving their effectiveness, safety, and without a guarantee of consistent or accurately reported ingredients. In Canada, products that have been evaluated for quality, safety, and effectiveness by Health Canada and authorized for sale will have a license number on the label.

### How effective is glucosamine/chondroitin?

Limited studies in animals have been performed to evaluate the effectiveness of glucosamine/chondroitin for osteoarthritis, and of the studies that do exist, the quality is lacking. However, there is anecdotal evidence that these supplements may be helpful. Studies evaluating the effectiveness of glucosamine/chondroitin for FLUTD are few, however they do show promise.

### How is glucosamine/chondroitin given?

Glucosamine/chondroitin is given by mouth in the form of a capsule, chewable tablet, liquid, or a powder. It may be given with or without food; however, if your pet vomits when doses are given on an empty stomach, give future doses with food. Measure liquid forms carefully. Give this medication for at least 2-6 weeks to evaluate how well it may work in your pet.

This medication can take up to a few weeks before full effects are noted, but gradual improvements are usually noticeable after a few days.

### What if I miss giving my pet the supplement?

If you miss a dose, give it when you remember, but if it is close to the time for the next dose, skip the dose you missed and give it at the next scheduled time, and return to the regular dosing schedule. Never give your pet two doses at once or give extra doses.

### Are there any potential side effects?

Side effects are uncommon but may include mild gas and soft stools. Studies are limited for this supplement however, and therefore information regarding side effects is also limited.

This short-acting medication should stop working within 24 hours, although effects can be longer in pets with liver or kidney disease.

### Are there any risk factors for this supplement?

Studies are limited for this supplement and therefore information regarding risk factors is also limited. Do not use glucosamine/chondroitin combination supplements in pets that are allergic to it (although this is rare). Use cautiously in pets with bronchoconstriction and/or asthma.

Some formulations contain significant amounts of potassium; use cautiously in pets that require low potassium diets. Glucosamine/chondroitin combination should be used cautiously in pregnant or lactating animals as safety has not been evaluated.

Use caution when switching brands, as the amount of active ingredients may not be the same.

### Are there any drug interactions I should be aware of?

The following medications should be used with caution when given with glucosamine/chondroitin: antidiabetics, doxorubicin, etoposide, heparin, or warfarin.

Vitamins, herbal therapies, and supplements have the potential to interact with each other, as well as with prescription and over the counter medications. It is important to tell your veterinarian about any medications (including all vitamins, supplements, or herbal therapies) that your pet is taking.

Is there any monitoring that needs to be done with this supplement?

There is no specific monitoring that needs to be done while your pet is taking this medication. Your veterinarian may monitor your pet to be sure that the medication is working.

How do I store glucosamine/chondroitin?

Due to the number of products available, please refer to the label for storage recommendations or ask your veterinary healthcare team for advice. In general, store these products in a tight container and at room temperature away from direct sunlight.

What should I do in case of emergency?

If you suspect an overdose or an adverse reaction to the medication, call your veterinary office immediately. If they are not available, follow their directions in contacting an emergency facility.