

## Nutraceuticals and Dogs

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The word nutraceutical — coined by combining nutrition and pharmaceutical — refers to a food or food ingredient that is believed to have health benefits. Nutraceuticals are naturally occurring compounds that come from animal and vegetable sources and include amino acids, essential fatty acids (EFAs), herbs, antioxidants, vitamins, and minerals. Nutraceutical medicine is the use of micronutrients, macronutrients, and other nutritional supplements as therapeutic agents. Nutraceuticals are popular because they rarely cause side effects.

Nutraceuticals such as EFAs are often used to help with skin problems. Joint pain can be helped by the nutraceuticals chondroitin sulfate, glucosamine, and methyl sulfonyl methane better known as MSMs as well as the antioxidant vitamins C and E, and herbs such as yucca or certain Chinese herbal combinations. These nutraceuticals affect the joint fluid, so they're most likely to have an effect in big joints such as the hips and knees.

Glycosaminoglycans (GAGs) are popular nutraceuticals for joint pain. They are the building blocks of many types of body tissues, including cartilage. The body uses glucosamine to synthesize, or create, GAGs. Products that contain GAGs are termed chondroprotective nutraceuticals and usually come from animal tissues such as cartilage. For instance, the primary ingredient in one nutraceutical product is *Perna canaliculus*, the green-lipped mussel, a rich source of GAGs. Researchers once thought that cartilage couldn't be rebuilt once it degenerated. Now, however, they believe that glucosamine supplements can help the body repair cartilage.

Next step: Physical Therapy

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