

Supplements for the Older Pet

What is a supplement?

A supplement is a concentrated nutrient source that is added to a basic diet for either a nutritional or a therapeutic effect. There is a great deal of confusion that surrounds the terminology of food additives, and sometimes terms are used interchangeably. For clarity, the following terminology will be used.

Dietary supplements or dietary nutrients are substances that are added to a food, usually to make it nutritionally complete and balanced. Therapeutic supplements are foods or food nutrients that are taken orally to provide a health benefit, either for the prevention or the treatment of disease. To have this therapeutic effect, a therapeutic supplement is usually taken in a larger dose than the daily requirement of that food nutrient.



Some commonly used supplements in the older animal are: glucosamine, vitamin B complex and fish oils.

What are the benefits of giving supplements to my older pet?

Aging is defined as the degenerative changes that occur after maturity in various organ systems, leading to decreased ability of the organism to meet the challenges of its environment. Degenerative conditions may affect the musculoskeletal system (muscles and bones), gastrointestinal tract (including the teeth), skin, heart, lungs, kidneys, liver, nervous system and specialized organs of sense (especially hearing and sight). It may be possible to slow the progression of degeneration by the appropriate use of supplements. Complaints arising from degeneration of the kidneys, eyes, liver, musculoskeletal system and nervous system are particularly common in geriatric dogs and cats.



Supplements are used to help counter this aging process. Effective use of supplements requires the consideration of patient factors such as the organ system that needs support, and product factors such as dosage, safety, efficacy and balance. Age itself is not a disease, but aging pets may have reduced ability to digest nutrients due to altered metabolism and decreased ability to resist infections due to an impaired immune system.

Dietary requirements change according to activity level, ability to digest and absorb nutrients, and ability to eliminate by-products and toxins. Dietary levels of proteins, fats, carbohydrates, fiber and minerals may need to be adjusted according to the individual patient. Nutritional supplementation to help facilitate these adjustments may improve longevity and quality of life in the older animal.

What are some of the most commonly recommended supplements for older pets?

Vitamin B complex, including Vitamin B1, B2, B6 and B12, is often recommended as a supplement. Risk of toxicity is low, since as a water-soluble vitamin, excess levels of B complex beyond the body's requirements will usually be excreted in the urine. Vitamin B complex is used to help counter fatigue and improve appetite. Vitamin C is recommended for its antioxidant effects, its potential to reduce inflammation through antihistamine (anti-allergic) effects, and its possible role in enhancing immune function. Vitamin E is recommended as an antioxidant and for its positive effects in inflammatory skin disorders.

Coenzyme Q-10, *Alpha Lipoic Acid*, *DMG* (dimethylglycine) and *L-carnitine* may all similarly improve overall physical performance or reduce the incidence and severity of age-related illness. Coenzyme Q-10 and carnitine help improve the strength of heart muscle while DMG is often recommended as an immune stimulant or anti-inflammatory for the joints. Alpha Lipoic Acid may be recommended to promote ocular (eye) health and to help slow degenerative neurological conditions

Increased *fatty acid* intake, especially Omega fatty acids, and increased *zinc* intake helps maintain healthy skin and coat and may modulate inflammatory reactions.

Digestive enzymes and *probiotics* may enhance the availability and absorption of dietary nutrients.

What about other supplements for specific disease conditions?

Some disease conditions are responsive to treatment with specific supplements. Supplements that may be of use in geriatric pets with specific disease conditions include glandular therapy or whole tissue supplements for degenerative processes; digestive enzymes or probiotics for gastrointestinal disease; chondroprotective agents (supplements that protect integrity of cartilage) such as glucosamine to improve mobility and delay progression of degenerative joint disease; and milk thistle for chronic liver problems, to name just a few. If you are giving these supplements to your pet, it is wise to inform your veterinarian, so that any other treatments that may be required can be effectively integrated.



How do I know whether a supplement is effective?

Very few supplements and herbs have been subjected to scientific trials to determine their efficacy, especially in animals. Indeed, much of the information about the use of supplements comes from anecdotal or testimonial evidence (someone tells you about their personal experience or about another patient who showed some benefit when taking the product). Supplements are also often used because of their effects in humans or laboratory research. Although this information may be of help, it is incomplete, and may not give a realistic indication of potential benefits to your pet.

With respect to geriatric pets, enhanced appearance (especially of the skin and coat) improvement in mobility, and increased activity levels are all common outcomes observed through the use of supplements. There may even be an observable dose-related response, where improvements are noticed when a supplement is given, and declines noticed when it is not. In these situations, the benefits of the supplement become obvious to both owner and veterinarian.

In other cases, it may be more difficult to perceive a benefit, especially if supplements are given to a patient in conjunction with other supplements or lifestyle changes. In these cases, it can be difficult to sort out exactly what effects can be truly attributed to the supplement, and what may be attributable to other factors, especially if they were made simultaneously.



For example, if a patient starts to take supplement Y, changes their diet to include a higher level of unprocessed food, and starts an exercise program, the observed changes may be due to any one of the factors, to a combination of all three, or even to a placebo effect.

To further complicate the issue of effectiveness, some supplements are only effective after they have been given for a period of time, and the patient may continue to show some of the positive effects for a few weeks after the supplement has been discontinued. An example of this is the use of glucosamine to ease the symptoms of arthritis. It may take from 4-8 weeks to show its effects, and can take the same period of time to 'wear off' after it has been discontinued.

How do I know if a supplement is safe for use in my pet?

The best source of information about the safety of supplements in domestic animals is your veterinarian, however some veterinarians may not have an advanced knowledge of alternative treatments, in which case a referral to another practitioner with a reputation for knowledge of the use of supplements may be recommended.

Quality of supplements can vary depending on the source and the manufacturer. Reputable manufacturers will provide detailed information about the product on the label or in a package insert. Veterinarians are often a good source of information about quality issues for individual products.

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