



## The Dietary Need of the Aging Pet

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During the course of a pet's lifetime, changes in the needs of certain nutrients may occur because a pet's ability to digest, absorb, or utilize certain nutrients may differ at different life stages. Changes in the pet's dental health or changes in their sense of smell or taste may also necessitate adaptations in the food. The addition of other nutrients such as antioxidants and chondroprotectives (joint protectors) can have a benefit to the pet's health as well.

Unfortunately, not all aging changes may occur at the same time, so when is dietary modification recommended for aging pets? We consider different pets to be "mature" or "senior" at different times. A cat is usually not considered to be mature until about ten years of age, while a large breed dog may be considered to be a senior after only five years of age.

One key to helping slow the effects of aging is antioxidants. Normal body functions, environmental factors, stress, and many other factors result in oxidative damage to cells. The pet's body has a built-in antioxidation system, but in many cases it can be overwhelmed. Oxidative damage continues to occur and may build up over the years. Royal Canin has developed a unique combination of antioxidants that has been shown to decrease oxidative damage to cells. A complex of vitamin E, vitamin C, taurine, lutein, and decaffeinated green tea polyphenols is included in our diets for mature animals. When used in this combination, these antioxidants have a synergistic effect. By adding these antioxidants to the food, we can fight some of the effects of aging.

Energy need is another area that changes as an animal ages. Interestingly, the needs in mature dogs and cats are opposite. In dogs, their digestive ability remains virtually the same (with perhaps a slight increase in transit time), but their activity usually decreases with age, which results in a decreased energy need (similar to humans). Royal Canin Aging Care 26 for large breed dogs and Aging Care 27 for small breed dogs have decreased energy contents. For many years, it was thought that cats needed decreased energy diets in their senior years as well. Research has shown that conversely, cats have a reduction in their digestive ability, but their activity level doesn't really change that much. For this reason, older cats have increased energy need. Royal Canin diets for mature cats are designed with an increased calorie content.

Palatability is important for aging pets because of decreased smell or taste sensation. This issue can be particularly prominent in small breed dogs. Royal Canin has developed unique palatability enhancers to stimulate eating in even the fussiest senior pet. For mature cats, dental disease may also have an effect on their desire to eat. If the teeth and gums are inflamed, chewing can be painful. The kibble of the feline mature formulas has been softened to reduce the likelihood of painful chewing. Additionally, these formulas contain an oral calcium chelator, or binder, that reduces tartar by preventing the incorporation of calcium into plaque.

Many older pets develop arthritis, so we have included supplemental levels of both glucosamine and chondroitin to help promote overall joint health. Omega 3 fatty acids are added to also help reduce any joint inflammation. Nutrients such as protein, phosphorus, and sodium are slightly reduced to reduce the workload of the kidneys.

Age is not a disease, but there are certain changes that occur in pets as a result of aging. By respecting the animal's changes in physiology, we can adapt their nutrition accordingly. Although we can not stop the effects of aging, we can provide food that promotes longevity and quality of life.