

**Stoney Creek Veterinary Hospital  
6460 Burlington Rd., Whitsett, NC 27377  
(336) 446-8071**

**Extending Your Dog's Life**

In recent years, advances in veterinary medicine have nearly doubled the life span of our dogs. Technological innovations available for people are now also offered to pets. With all this new technology and information, is there a limit to our pet's longevity?

No one likes to think about a beloved pet growing older. We cringe as the once exuberant puppy needs help up stairs or tires after a short walk. Anti-Aging medicine is the newest clinical medical specialty offered to physicians. So, why don't we hear more about this for our pets?

Pet owners are demanding a higher quality of medicine for their pets and human medicine is moving from a disease-based model to a preventive, proactive approach. Shouldn't our veterinarians move in this direction as well?

The fact is movement is already occurring. Many veterinarians have shifted towards wellness protocols that get our pets into their offices two, three or even four times a year. More visits mean more chances to find small issues before they become big problems! But, just seeing your veterinarian more often is only part of the solution.

When scientists unraveled the genetic code of our dogs, they discovered our two species share similar mechanisms relative to aging. As we grow older, adverse changes in our cells increase the risk of death. About a third of these changes are genetic in nature. More often, however, they are due to lifestyle and environmental factors.

As systems slow down, cells deteriorate faster than the dog's body can repair them, leading to a decline in function and even appearance. The American Academy of Anti-Aging Medicine ([www.worldhealth.net](http://www.worldhealth.net)) states that up to 90% of diseases are due to the degenerative process associated with aging. So, earlier intervention by veterinarians might provide your pet with a longer, happier life.

Currently, one aging theory has become almost universally accepted. The Free Radical Theory states that cells accumulate damage from the presence of atoms or molecules with an unpaired electron ("free radicals"). This cellular damage is cumulative and leads to a loss of functionality and then death. By finding ways to reduce the chaos caused by free radicals, scientists hope to lengthen the average lifespan.

Some experts point towards antioxidants as the answer to free radical damage. Antioxidants slow or even prevent the changes to cells by removing intermediary chemicals in the oxidation reaction of free radicals. Once the intermediate steps are stopped, damage is reduced or avoided. Antioxidants include compounds such as Vitamins C and E, beta carotene, retinol and melatonin. Many of our fruits and vegetables contain high levels of these antioxidants.

**Stoney Creek Veterinary Hospital**  
**6460 Burlington Rd., Whitsett, NC 27377**  
**(336) 446-8071**

However, diet alone cannot provide the levels of antioxidants needed without seriously affecting caloric intake and causing obesity. As with most things in life, more is not always better and in some cases, excess supplementation can result in adverse side effects.

Antioxidant benefits are numerous, but the lack of standardization to dosages and clear research is a concern. Many species including man, dogs and cats benefit from antioxidant supplementation, but more studies are needed. Despite this uncertainty, many pet food companies are marketing new lines of pet foods enhanced by antioxidants or touting “fresh fruits and vegetables” in their diets. Nutraceutical preparations are also available that add antioxidants to the pet’s diet with promises of better health.

A better way to reduce the damages of the free radicals is caloric restriction, or maintaining lean body weight. Many different models, from mice and rats to fruit flies, have shown that reducing the amount of calories fed can increase life spans. Even dogs have benefitted. A recent landmark study showed dogs fed on restricted calories actually lived almost 2 years longer than their free fed counterparts. Human studies show lower cholesterol, lower blood pressure and a lower body fat percentage as benefits of limiting your caloric intake.

So, what does this all mean to you and your pet? Simply put, there is no magic bullet, but veterinary science continues to investigate novel therapies and ideas to help keep our pets with us just a little longer. As with any medication or diet change, you should always discuss use of antioxidants or anti-aging therapy with your veterinarian.

Prevention, early disease detection and prompt intervention, combined with good nutrition, exercise and regular veterinary visits are the cornerstones of your pet’s good health.