

# Vaccines, Nutrition, and Your Pet's Immune System

By Dr. Becker

If you visit here at MercolaHealthyPets regularly, you know I constantly stress the importance of a balanced, functional immune system for companion animals. It is one of what I call the “three pillars of health,” along with species-appropriate nutrition and a strong, resilient frame.

Your pet's immune system should be able to do its job of protecting the body against disease without becoming over-reactive. This is why balance is so important. An under functioning immune system leaves your pet vulnerable to disease. An over-active immune system can manifest in allergic and other autoimmune conditions – some of them very serious and debilitating.

## Vaccines and Your Pet's Immune System

When I discuss ways to keep your pet's immune system healthy, I always discourage over-vaccinating. The role of vaccines is to stimulate the immune system to respond. Repeated vaccinations can excite the immune system to such a degree that it becomes hypersensitive. This in turn can prompt it to overreact to benign environmental irritants like pollen, which can lead to a chronic allergic condition. It can also cause the immune system to launch an attack against an organ or system within your pet's own body, creating an autoimmune disease.

Once a pet's immune system is over reactive and causing health problems, often the treatment is an immunosuppressant drug like Prednisone, which is a corticosteroid. These drugs turn the immune system down or off so it no longer over reacts, symptoms subside, and temporarily, the animal feels much more comfortable.

Typically the next step is to stop the drug and hope the immune system turns back on but is no longer over reactive. Sometimes things work out; often they don't and your pet's symptoms return, or a new set of symptoms appears. And if the immune system fails to come back online, it leaves your four-legged family member defenseless to fight opportunistic infections and disease.

So in essence what we are doing is taking a healthy animal, over-stimulating his immune system with repeated unnecessary vaccinations, and then when his immune system malfunctions, we shut it down with drugs and hope everything works out when the drugs are stopped.

This sequence of events is truly as crazy as it sounds, not to mention dangerous to your pet's health. If you're worried that your dog or cat won't be protected from disease if she isn't re-vaccinated regularly, I encourage you to read this article. Be sure to scroll down to the bottom where you'll find my vaccine recommendations as well as those of Dr. Ronald Schultz, one of the preeminent experts in the field of veterinary vaccines.

## Another Way to Protect and Enhance Your Pet's Immune System

It's called immunonutrition.

Immunonutrition refers to macronutrients, vitamins, minerals and trace elements that support the immune system through their effect on inflammatory processes, the action of white blood cells, the production of antibodies, and disease resistance.

The field of immunonutrition evolved from the study of immune system insufficiency caused by malnutrition. In the U.S., malnutrition is no longer the primary cause of lowered immune status in otherwise healthy pets. Instead, life stages (in particular, very young and geriatric animals), lifestyles and natural stressors are bigger factors.

Age-related or naturally occurring stressors reduce the capacity of your pet's immune system to deal with foreign invaders, which results in increased susceptibility to infections, autoimmune disorders and cancer.

Because somewhere around 70 percent of your pet's immune system resides in the gut, immune cell receptors in the GI tract create an excellent platform for modulating the immune system through diet.

### Immune-Boosting Nutrients

What you feed your pet impacts her immune system on several levels. The first level involves providing basic essential nutrients, followed by delivering higher levels of vital nutrients including:

**Protein and amino acids.** Arginine is an amino acid that when supplemented in the diet has been shown to increase T-cell immune function. T-cell activity is critical to the immune system's ability to respond effectively to pathogens and cancers. It's nearly impossible to determine how much arginine is in commercial pet food, but chicken, salmon and eggs are excellent sources of this important amino acid.

**Essential fatty acids.** Arachadonic acid (AA) is a pro-inflammatory omega-6 fatty acid found in high quantities in many inexpensive commercial pet foods. Supplementing with an omega-3 fatty acid – ideally krill oil – decreases production of prostaglandins, which reduces inflammation throughout your pet's body. Keep in mind that prolonged low-grade inflammation is one of the primary findings in almost every type of chronic illness, including arthritis, diabetes and cancer – all common diseases in pet dogs and cats.

**Vitamins and minerals.** I'm sure you've heard the term "free radicals," which are molecules responsible for aging and tissue damage. Antioxidants, in particular vitamins A, C and E, selenium and zinc, protect the body from damage caused by free radicals. When your pet is sick or otherwise stressed, free-radical production increases significantly. Foods rich in antioxidants include fresh vegetables and fruits. And raw nuts and seeds are a great source of E, selenium and zinc. You can also offer your a pet a whole food supplement.

### Other Tips for Keeping Your Pet's Immune System Healthy

Feed a balanced, species-appropriate diet throughout your pet's life.

Maintain your dog or cat at a healthy weight and in good physical condition.

Use drugs, including pest preventives, sparingly. Antibiotics, corticosteroids, flea and tick repellents and heartworm preventives are overused in veterinary medicine. Before you put any chemical into or on your pet, check with your holistic vet to see what natural alternatives might be just as effective.