



# VITAMIN D DEFICIENCY

**The vitamin D deficiency epidemic has extended beyond humans to our pets. It's an important factor in disease prevention and can often be corrected with holistic care.**



Since beginning her holistically oriented veterinary practice over 25 years ago, Deva Khalsa VMD has been incorporating homeopathy, acupuncture, Chinese Herbs, nutritional advice, allergy elimination techniques such as NAET and JMT into her approach. Today her work is a blend of sophisticated holistic techniques and traditional veterinary medicine designed to best enhance the natural strengths and attributes of her patient. Visit her online at [doctordeva.com](http://doctordeva.com)

**W**e pay quite a bit of attention to our dogs' diets. That's because we know that if we feed our dogs balanced meals they'll stay healthier.

For years, calcium was considered the most important nutrient for bone and joint health. But according to the newest research, calcium plays second fiddle to vitamin D3. That's because vitamin D3 improves the intestinal absorption of calcium and the two work in unison to promote optimal bone health. Calcium without vitamin D3 is like a carriage without a horse.

### Important Immune Support

Today, vitamin D gets a lot of press and scientists have realized how important D3 is to health. Vitamin D3 has many important functions in the body. It affects mood and, importantly, is an integral immune system booster. One of the reasons people get fewer colds and flu in the summer is thought to be the increased levels (due to more sunlight) of this essential vitamin in their systems. The Department of International Health, Immunology and Microbiology at the University of Copenhagen also found that D3 activates the important immune system killer and helper cells,

playing a major role in immune system function. These cells can't even mobilize without adequate vitamin D.

### Vitamin D3 Deficiency

Vitamin D3 deficiency in humans is now epidemic. People get most of their D3 from UV exposure. When humans left the sunlight of the fields to work indoors (and used sunscreen when outside), their levels of D3 suffered. It's now become routine to test human' vitamin D3 levels, supplementing this vitamin when necessary. While people get their vitamin D3 from UV radiation absorbed through the skin as well as from their diets, dogs and cats primarily get their form of active D3 from diet.

For many years, I've suspected a vitamin D3 deficiency in both dogs and cats. I attribute the rise in cancer and many other diseases, in part, to this deficiency. I called professional acquaintances in our commonly used laboratories and asked when they were going to start testing pets for D3 deficiency. So I was delighted when VDI Laboratory started to test vitamin D3 in animals two years ago. The founders of VDI Labs were previously at Quest Diagnostics, who'd done the initial D3

**A study, soon to be published, confirms that 75 percent of all dogs and cats fed commercial dog food are insufficiently fortified with D3. Additional studies in the past have shown that low stores of Vitamin D3 are associated with a wide variety of diseases in both dogs and cats.**

# Increase Revenue and Traffic



FREE TRIAL

Turn your customers into fanatics with your own custom imprinted magazines

## FROM OUR CUSTOMERS

"It was a breath of fresh air to discover a magazine that respected its readers and that was both intelligent and thoughtful."

- Natalie Gore,  
Bailey Blu Pet Boutique

I was told "Any shop that believes in the value of this magazine, is a shop I want to support. You have a new customer!"

- Rodney Habib, Planet Paws

Get your risk free trial today!

877-665-1290

[dogsnaturallymagazine.com/offers/trial/](http://dogsnaturallymagazine.com/offers/trial/)

research in the field of humans. Now VDI wanted to find out if what was happening in people was also true for animals.

A study, soon to be published, confirms that 75 percent of all dogs and cats fed commercial dog food are insufficiently fortified with D3. Additional studies in the past have shown that low stores of vitamin D3 are associated with a wide variety of diseases in both dogs and cats, including cancer, IBD, renal disease, heart disease, infections, feline tooth reabsorption and hyperparathyroidism. Even a number of feline idiopathic hypercalcemias result from D3 deficiency.

## A Hormone, Not A Vitamin

Vitamin D obtained from sun exposure, food and supplements is a hormone, not a vitamin. It's biologically inert and must undergo two hydroxylations in the body to be activated. The first hydroxylation occurs in the liver and converts vitamin D to 25-hydroxyvitamin D (abbreviated as 25(OH)D), also known as calcidiol. The second occurs primarily in the kidney and forms the physiologically active 1,25-dihydroxyvitamin D (1,25(OH)2D), also known as calcitriol.

Dogs and cats get their active vitamin D3 from their diet. D3 is a fat soluble vitamin and in pet foods it comes from the fat of the meat product. If that's not enough, the manufacturers supplement with D3. But the 25-hydroxyvitamin D from meat fat is absorbed much more readily than supplemental D3. Just like any other vitamin, cooking and heating can also destroy some of the vitamin D3.

Evolutionarily, a dog's normal diet consisted of the whole prey animal including the fat, which is the primary store of D3 in the 25-hydroxyvitamin D form, the precursor to the active hormone 1,25-dihydroxyvitamin D. The liver gets it all ready but it's actually the kidneys that do the work to transform it into the active hormone.

VDI Laboratory researchers feel that when humans started working indoors, dogs also lost their natural raw diet. This resulted in a simultaneous epidemic of vitamin D3 deficiency in both humans and their pets. The researchers found that when dogs and cats returned to a raw food diet their active vitamin D3 reached sufficient levels. In contrast, many of the pets on

commercial food diets are deficient in the 25-hydroxy form.

## More Fat = More D3

Dogs process fat differently from people. What we think of as a proper diet for ourselves (less fat) is not right for a dog or a cat. Testing has shown that dogs and cats have much higher needs for 25-hydroxy than humans. In pets, when you get above 100 nanograms per milliliter in the blood (the recommended level of this hormone), the parathyroid hormone plateaus, inflammation drops and phosphorus stabilizes. The studies on animals are the same basic studies that were done to determine Vitamin D3 sufficiency in humans.

Illustrating the importance of fat ... a woman who loved her toy poodle fed

## D3 Canine Risk Factors

There are multiple factors that affect vitamin D3 status in dogs.

Over the age of five, vitamin D3 absorption starts to drop by about three to five percent per year.

Intact status affects 25-hydroxy vitamin D levels. Female spayed dogs are ten percent lower than intact females and male neutered dogs are 30 percent lower than intact males. It's been found that the risk of getting cancer quadruples in dogs with low stores of vitamin D3. It's no wonder that studies are now showing more cancer in spayed and neutered animals.

VDI Labs looked at several common breeds and found that Golden Retrievers, a breed that is very prone to cancer, have significantly lower D3 than other breeds. German Shepherds were also low in D3 but less so.

## A Link to Doggie Dementia?

According to a study published in the medical journal *Neurology*, vitamin D3 deficiency doubles our risk of acquiring dementia and Alzheimer's disease. Dogs with Canine Cognitive Dysfunction have lesions in their brain that are similar to Alzheimer's patients. A large percentage of dogs over ten may experience some symptoms of CCD, including various stages of confusion and disorientation.

I've treated older dogs with dementia symptoms with vitamin D3 and the results have been remarkable. Many behavior problems respond positively to extra D3. Sometimes older cats start howling around the house at night, which is very stressful for their humans. Again, some extra vitamin D3 in the diet can work a miracle.

him the same thing she ate – with the fat trimmed off the meat. The dog was later found to have a vitamin D3 deficiency because D3, being a fat soluble vitamin, is found in the fat of the meat.

## Vitamin D3 And Disease

As discussed above, the kidney completes the critical conversion of vitamin D3; this means kidney patients must be vitamin D3 fortified. This will help with both the high phosphorus and the low calcium levels that occur in canine kidney disease. Human end-stage renal patients have been shown to greatly benefit from more vitamin D. Doctors inject the active hormone because the kidney cannot make it at all.

Irritable Bowel Disease lowers the levels of active D3 hormone. The conventional treatment for IBD is a steroid such as prednisone. Steroid use up-regulates the destruction of both forms of D3. It creates a double-edged sword situation: low levels of D3 due to the IBD itself, and increased destruction of the D3 due to treatment. Chronic IBD can lead to intestinal lymphosarcoma. Any kind of GI disorder will impair D3 absorption. The good news is

that clinical evidence shows that correcting the vitamin D3 deficiency can improve the clinical signs of IBD.

I believe vitamin D3 deficiency is also a major factor in cancer in our dogs and cats. As an example, Golden Retrievers are known for their susceptibility to cancer; they also have a breed proclivity to low vitamin D levels. With one in two dogs over ten years old getting cancer it's a phenomenon that merits attention.

## Get A D3 test

Because of all these variables, it's a good idea to have your pet tested for Vitamin D3. Vitamin D3 testing requires a sample of blood serum to be placed on a special absorbent paper that VDI labs provide for your veterinarian. Price varies by veterinarian but the price is reasonable – somewhere around 60 bucks.

In closing, we can't dismiss vitamin D3 as it is vital to every aspect of our dogs' health. Many of the common medical problems we see may be avoided or alleviated when D3 levels are corrected. It's a worthwhile endeavor to pay attention to vitamin D3 in our dogs' diets. 🐾



Facebook.com/PlanetPawsPetEssentials

**PLANET PAWS**  
PET ESSENTIALS

**A NATURAL APPROACH FROM HEAD TO TAIL**

At Planet Paws we have two goals in mind: the well-being of your pet, and to not predict the future of your pets' health, but to help you dictate it.



## Flower Essence Formulas

24 All Natural Formulas for Professional Results

- Each formula specifically designed to improve your dog's behavior and well-being
- Visit our website to find the perfect formula for your needs

*Aldaron*  
**ESSENCES**



[www.aldaronessences.com](http://www.aldaronessences.com)