

Understanding vitamins and what they can do:

Questions by: Brenda Johnson

Answers by: Thomas R. Willard, PhD
CEO/President
Performance Foods, Inc.

How much vitamin supplement is too much?

The simple answer is if you are feeding any one of the Totally Ferret foods; do not add any vitamin supplements. Unfortunately, those that mix a variety of foods whether cat foods, mink pellets, raw foods, or other non-TF combinations, there is a need for a complete vitamin/mineral supplement. Your question hits the problem with all of these "home made" or "home remedies" exactly. Unless these people take the time or have the expertise to combine the ingredients that not only supply all the major or macro essential nutrients in a usable form such as proteins, amino acids, fats, essential fatty acids, plus the 30 some essential micro and sub micro vitamins and minerals, then these poor ferrets are going to start showing signs of deficiencies.

What is the over the top amount of vitamins that would do harm to a ferret if you were giving supplements in addition to food and then using them in the Duck soup we serve to sick ferrets.

Again Brenda, the people doing these mixes, for the sake of the ferrets, have to know what they are feeding totally and can not just throw a vitamin and or mineral capsule in for good measure. Nutrition is about balance among all the 60 plus nutrients in the food, it is not just about the level of protein level as some companies who sell high protein foods or individuals would have you believe. There are a number of ferret foods that cannot back up their claims of superiority based on research. They are following the trend of the dog and cat food markets and simply making marketing claims with out being able to support their claims with research. So the true answer about how much vitamin and mineral supplementation is too much is it varies with every individual formula, with every time they buy ingredients and with every batch they make. Our company has spent over 8 years of continuous testing on thousands of ferrets plus 15 years in business to come up with our formulations, which came from my 30 some years of education and experience in pet and carnivore nutrition to get where we are.

Continued on next page

Are there some vitamins that are more harmful than others in large amounts?

You bet. All the micro minerals, Zn, Se, Mg, Mo, Cu and Fe are toxic if given in high levels as well as an imbalance in their ratios with the other nutrients. For example Ca and P will interfere with the uptake with each other as well as with Vitamin D while Ca will interfere with the uptake of Zn if not in the right amounts and ratio. Too much P will block the utilization of Fe and Cu, which are essential for blood hemoglobin formation. Lysine, an essential amino acid will interfere with Arginine, another essential amino acid if not balanced with each other. The omega 3 and 6 fatty acids ratios and source are a whole other consideration because this determines their individual physiological availability and utilization. Excess amounts of omega 6 can affect the immune system as well as cause skin and coat problems.

I believe I was told Vitamin E is a very lethal vitamin if used in large amounts.

It can be but D3 is more lethal and again the source is critical. As stated above, balance is more important with most of these micronutrients than actual levels. Like a spice in cooking, more of the micronutrients are definitely not better.

I have discussed the possibility of over dosing with vitamins; the question I get back is what is too much?

**** Since there is not a list of guarantees on the vitamins and minerals on any ferret or other pet foods, including those sold exclusively by vets, it is not possible to know the total amount of each vitamin and mineral being consumed. Far more important, is the vitamin availability or what the ferret actually metabolizes. Our vitamins and minerals comes from the best supplier of high quality and proven metabolic availability in the US and Europe. This high quality, combined with levels indicated from our ferret nutritional test and research is the main reason we emphatically state that when feeding any Totally Ferret product no vitamins, minerals or supplements are required or suggested. We guarantee every ounce of all of our products to be 100% satisfaction guaranteed and all of our foods to be 100% nutritionally guaranteed to meet all of the ferret's nutritional requirements. Some say no one has done the research to prove this. We have. So, if people still elect to take a shot in the dark and do their own home blending thinking that they are able to do a better job based on some unproven or untested formula they pull off the internet or out of a magazine or heard a lecture from some supposedly ferret guru, then I pity the poor ferrets.