

Living and Learning with Dr. Julie  
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## ***Buyer Beware:*** The World of Nutritional Supplements

First of all, let's get some history and a definition or two out of the way. Nutritional supplements are regulated by the Food and Drug Administration (FDA) of the federal government and are defined (paraphrasing) as products that are intended to add further nutritional value to supplement the diet. Supplements are available everywhere and include vitamins, herbs, fish oils, glucosamine and other joint health products, minerals and many, many, *many* more. The supplement industry is a major player in the national economy with Americans spending over 30 billion dollars annually on these very loosely regulated products.

The pet dietary supplement industry is estimated at a mere 550 million dollar annual sales though that number is probably understated as it is nearly impossible to determine when purchasing a supplement whether the buyer purchases it for themselves or a family pet or both.

While the definition of what nutritional supplements are is fairly broad, there is one thing they definitely are *not*, and that is **drugs**. The definition of a drug (or one of many definitions) includes "a chemical substance that affects the processes of the mind or body". In fact, by definition it could be hard to tell a supplement from a drug. What separates the two in practice into very different entities is largely FDA regulation or lack thereof.

A **drug** is subject to stringent requirements for both safety and efficacy during the development process by the pharmaceutical company. This doesn't mean that a drug may not prove at some point to be either excessively risky or not very effective and that certainly can occur. However, the approval process required for a drug company to market and release a drug into the general population is difficult, time consuming and expensive. The goal of that process being to provide the best and safest product to treat medical conditions and optimize health for patients and purchasers.

Dietary supplements, on the other hand, were largely defined (legally speaking) by the Dietary Supplement Health and Education Act of 1994 ("DSHEA"). Part of that definition in essence provided the dietary supplement industry a way around the rigorous and lengthy approval process that applied to drugs. If labeled as a 'dietary supplement' a substance could be fast tracked to the market, leaving the FDA to try to identify and potentially remove from the market any products that may be dangerous or cause harm *only after the fact*. Most of the information the FDA uses to determine if a supplement could be harmful comes from voluntary reporting of adverse effects from clinicians. And while dangerous or contaminated supplements are a real risk in the wild west of the supplement industry, no doubt the most common risk is simply that of spending money for products that are not bioavailable (are broken down before having effect or are excreted unchanged) or otherwise have no real affect or products that have little or none of the listed ingredient in the actual supplement. In short, **buyer**

**beware.** From a time and resource standpoint, the FDA is generally unable to regulate products that do not live up to the marketing or labeling statements and involvement is usually directed at a small number of products involving evidence of contamination or potentially significant health risk. Various studies funded by private companies or non-profit entities have repeatedly demonstrated the most common concerns with ineffective, mislabeled or contaminated supplements.

So, now that I've demonstrated my concern about the effectiveness and safety of nutritional supplements generally, below are listed a few of the supplements veterinarians do regularly recommend to our animal patients (and use on our own pets). Keep in mind that as medical professionals, veterinarians always acknowledge and accept a risk of potential side effects or negative reactions from the products we recommend whether food, supplements or drugs. And while supplements do not have to go through any significant approval process, the products are often tested and the companies that manufacture them have differing standards for production as well as better or not-so-good reputations for their products and their manufacturing standards that we try to keep aware of.

#### *So What Are Some Commonly Recommended Nutritional Supplements?*

The biggest area for pet health supplementation is probably joint health. Osteoarthritis is a major component of the decreased quality of life experienced by pets, especially large breed dogs, as they age. Supplements like omega-3 fatty acids and glucosamine/chondroitin have shown some evidence to suggest they improve quality of life for degenerative joint disease sufferers. Also inflammatory conditions such as skin disease and some types of gastrointestinal disease can respond to nutritional treatments and supplements. Additionally, evidence that anti-oxidants can aid in the day to day conservation and improvement in brain and cognitive processes is persuasive.

So... as in many areas of health and wellness we need to take responsibility as pet owners, pet lovers and veterinary caregivers to work to keep up with the best information out there for our companion animals and patients. For good or ill, nutritional supplements are widely available, widely used and have the potential to improve health or cause disease states and definitely impacts our pocketbooks. It is up to all of us to learn a little bit about what these products are and work with reliable sources, including the veterinary professionals who help to care for our pets, to decide what is more likely to help and what is best left on the shelf.