### SUPPLEMENTS FOR PUPPIES AND KITTENS

### What is a supplement?

A supplement is a concentrated nutrient source that is added to a basic diet for either a nutritional or a therapeutic effect. There is a great deal of confusion that surrounds the terminology of food additives, and sometimes terms are used interchangeably. For clarity, the following terminology will be used.

Dietary supplements or dietary nutrients are substances that are added to a food, usually to make it nutritionally complete and balanced. Therapeutic supplements are foods or food nutrients that are taken orally to provide a health benefit, either for the prevention or the treatment of disease. To have this therapeutic effect, a supplement is usually taken in a larger dose than when fed as a nutrient.



## What special nutritional requirements do puppies and kittens have?

Puppies and kittens are growing and developing rapidly. They have higher caloric requirements than adults, and require increased levels of fats and proteins in their diet in



order to grow and develop both structurally and physiologically. Optimal nutrition is critical in the development of a healthy immune system.

Puppies and kittens require more calcium and phosphorus than adults, and these minerals need to be supplied in the correct ratio. Both over- and under-supplementation can be harmful.

They are subject to a lot of stressors, both physical and mental, including weaning, separation from their littermates and mother, and introduction into new environments to name a few. These stressors may increase nutritional needs.

# Should I give my puppy or kitten additional calcium or mineral supplements?

Calcium excess in kittens has not been associated with development of skeletal

abnormalities. However, excess calcium intake may impair the availability of magnesium. Calcium deficiency is a common problem in kittens and puppies fed an all meat or a home-prepared diet. Calcium deficiency is a common problem in puppies fed a home-prepared diet without appropriate supplementation.

Although in general, calcium absorption is dependent on both calcium requirements and dietary intake, young puppies have an impaired ability to regulate their calcium absorption. As a generalization, this ability to regulate calcium absorption does not develop until the puppy reaches at least ten months of age. Smaller



Giant breed dogs seem more susceptible to calcium imbalances.

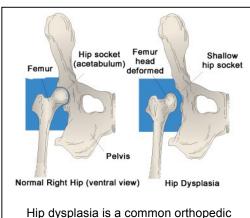
breeds of dogs appear to be less sensitive to slight imbalances in calcium level than large and giant breeds of dogs. Calcium excess may be associated with the development of orthopaedic problems such as canine hip dysplasia in susceptible breeds.

Because of the risks associated with both calcium excess and calcium deficiency, supplementation should only be given under the guidance of a trained veterinarian. Consult a veterinarian for advice about amounts and optimal sources. As a general rule, calcium citrate is generally considered superior to calcium carbonate.

### Are there supplements that may provide health benefits to my puppy or kitten?

The stresses associated with growth and development may lead to increased requirements for vitamins, especially B vitamins. Vitamin C may support joint health and minimize the development of hip dysplasia in some breeds. Digestive enzymes and probiotics may enhance the availability and absorption of essential nutrients.

### How do I know if a supplement is safe for my puppy or kitten?



Hip dysplasia is a common orthopedic problem in large and giant breed dogs.

The best source of information about the safety of supplements in pet animals is a veterinarian trained in, and receptive to, their use. Other practitioners may not be aware of some of the safety issues surrounding specific products or their use in various conditions.

The quality of supplements can vary depending on the source and the manufacturer. Reputable manufacturers will provide detailed information about the product on the label or in a package insert. Veterinarians are often a good source of information about quality issues for individual products.

#### How do I know whether a supplement is effective?

Very few supplements have been subjected to scientific trials to determine their efficacy. Indeed, much of the information about the use of supplements comes from anecdotal or testimonial evidence (someone tells you about their personal experience or about another patient who showed some benefit when taking the product).

A great deal of information has also been obtained from the use of supplements in human medicine or from laboratory research. Although this information may be of help, it may be incomplete, or it may not represent what effects the supplement could have on your pet.

With respect to young growing pets, enhanced appearance, especially of the skin and coat, normal rates of development of bones and teeth, and growth rates that are consistent with the pet's breed and age may suggest the effectiveness of a supplement treatment. Since puppies and kittens mature at a rapid rate, it is advisable to have regular assessments of the pet's progress by a trained veterinary professional in order to detect problems or concerns in a timely manner.

This client information sheet is based on material written by Steve Marsden, DVM ND MSOM LAc DiplCH AHG, Shawn Messonnier, DVM and Cheryl Yuill, DVM, MSc, CVH.
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