

Benefits

- Strong Bones & Teeth
- Normal Blood Clotting
- Proper Nerve & Muscle Function
- Proper Vitamin D metabolizing
- Proper Parathyroid Function

ESSENTIAL CALCIUM

If you feed raw or home-cooked diets to your dog or cat you need to pay attention to the calcium you pet is getting. It tops the list of essential minerals and does require some attention to supplement properly.

TOO LITTLE....TOO MUCH

Both can cause problems. While it's important to ensure that your pet is getting enough calcium in their raw or home-cooked diet it is not advised that already supplemented commercial diets have calcium added to them.

This is especially important when feeding puppies and kittens. Puppies under the age of six months can't regulate the uptake of calcium and will absorb any excess that is fed to them, which can cause painful bone growth abnormalities.

If you feed a diet without any form of added calcium your pet will literally mine it's own body for this essential mineral, causing osteoporosis which can result in weak, easily broken bones and teeth.

Dogs (and especially puppies!) should be eating 1.2-1.4 parts calcium to 1 part phosphorus, and cats closer to 1 to 1. These ratios are somewhat flexible with adult dogs and cats (a good thing, since precision is almost impossible to achieve) when

PROMOTING BALANCED MINERALS

Minerals do a complex dance with each other in the body; too much of one mineral can affect the levels of another. For example, Calcium and Phosphorus interact with each other. Meat is high in phosphorus, so animals eating lots of meat must have plenty of calcium in their diets too. Lower phosphorus (such as when using seaweed calcium) is ok for adult animals, but kittens and especially puppies *must* have the proper balance (Four Leaf Rover Better Bones is the best choice).

DAIRY FOOD WON'T CUT IT

The amount of calcium in milk products is just about enough to balance out the phosphorus in the milk itself, and won't be enough to balance out the meat in the diet.

BONES MUST BE EDIBLE

"Raw Meaty Bones" (RMBs) are non-weight bearing bones like necks, backs, and wings. These are softer, consumable bones, and they provide a good balance of calcium and phosphorus. RMBs <u>fed in proper ratio</u> with meat, organs, and vegetables (as outlined in our "Raw Food Tips" handout) can be used as the sole source of calcium. "Recreational Bones" are harder, usually leg bones, and are only meant to be scraped clean, not eaten. Recreational bones are not a source of calcium.

Product Suggestions

- Animal Essentials Seaweed Calcium
- Four Leaf Rover Better Bones
- Pet's Friend Eggshell Calcium
- Annamaet Enhance

Learn More

Check out these books:

- Forever Dog Life
- Optimal Nutrition
- Yin & Yang 2.0 Nutrition for Dogs
- Raw Dog Food: make it easy for you & your dog
- The BARF Diet
- Grow Your Pup with Bones
- Give Your Dog A Bone

Online Resources:

- perfectlyrawsome.com
- freshfoodconsultants.org
- foreverrecipes.com
- feline-nutrition.org

FOLLOW THE DIRECTIONS AND RECIPES

It's important to follow the direction of pet calcium supplements, and above all to use them consistently. Each type of calcium supplement will have different amounts to use per pound of meat. For example, if you're using a recipe that calls for one tablespoon of bone meal you should *not* use the same amount of seaweed calcium – they do not contain the same amount of calcium and phosphorus by volume and thus are not interchangeable.

MAKE YOUR OWN EGGSHELL CALCIUM

Eggs are a wonderful food resource. The white and yolk together provide a wonderful balance of nutrients. It is a highly digestible protein source. The membrane lining the inside of the egg provides joint supporting nutrients like glucosamine, chondroitin, hyalauronic acid, and collagen. You can also use the shell as a source of calcium.

Start with organic, vegetarian-fed free range (pastured is even better) eggs. After using the contents rinse (with plain water) the leftover egg white out. Be careful to retain the membrane lining the inside of the egg.

Thoroughly dry the shells. You can air dry them, use an oven (set under 200F), or a dehydrator; just be sure you don't cook them. You must ensure that they are thoroughly dry before processing them or they will go bad quickly

Break up the shell into small pieces. Use a clean electric coffee grinder to grind the shell into a fine powder (blender and food processors usually won't do the job and jagged pieces can irritate their digestion).

Store in a closed jar in your refrigerator. Feed ½ teaspoon for each pound of muscle meat (one large shell provides about 2,000 mg of calcium)

ALL-TOGETHER OPTIONS

There are some products that combine a multi-vitamin/mineral with added calcium so that you can ensure that all the nutrients are in good balance with each other. These "one-and-done" products can make it easy to ensure your pet's good health with homemade diets where bones are not being fed. Be sure you're using one that says right on the label that it's meant for that use; some incomplete products contain a little calcium, but are not intended to balance a diet.

MAKING YOUR OWN FOOD? PLEASE FIND A BALANCED RECIPE

The internet is the Wild West when it comes to homemade pet food advice. Please use legitimate recipes that will ensure a well balanced diet. Our recommendations are in the sidebar.

