



Puppy

LARGE BREED PUPPIES: EXCESSIVE CALCIUM IS DETRIMENTAL TO HEALTHY BONE DEVELOPMENT

Calcium is an essential mineral critical to many functions in the puppy, and the intake of the correct amount of calcium is key.



Too little calcium could lead to rickets or stress fractures, but too much calcium could result in skeletal malformations and secondary nutrient deficiencies.

Key Messages

- Unlike adult dogs, puppies cannot adequately regulate how much dietary calcium they absorb from the intestinal tract. Sometimes they absorb and retain too much calcium, which can cause skeletal malformations.
- The amount of calcium needed differs in large and giant breeds when compared to small breed dogs. However, diets with about 1% calcium (dry basis) are adequate for puppies of all sizes.
- Excess calcium could cause a decrease in phosphorus absorption, and the recommended ratio of calcium to phosphorus in the pet's diet should be around 1:1.
- Complete and balanced growth diets provide calcium concentrations in the safe range. **When such a diet is fed, calcium supplementation is unnecessary and potentially harmful.**

Additional Resources

Larsen, J. (2010). Feeding large-breed puppies. *Compendium: Continuing Education for Veterinarians*, 32 (5), E1-E4.

The Purina Institute aims to help put nutrition at the forefront of pet health discussions by providing user-friendly, science-based information that helps pets live longer, healthier lives.