

Why "Overgrowing" Your Large Breed Puppy is Dangerous

By Dr. Becker

Today I want to discuss slow growth diets for growing puppies – especially large and giant breed pups.

Contrary to what many people continue to believe, a roly poly puppy is not a healthy puppy.

Optimal growth in a large or giant breed puppy is very different from *maximum* growth.

The goal of breeders and owners of big dogs should not be to help their puppies grow as big as possible, as fast as possible.

Somehow, we've gotten the idea a large, fast growing puppy is a positive thing for the health of the dog.

Actually, the opposite is true.

And until everyone understands that, sadly, we as dog owners will continue to contribute to the development of orthopedic diseases in large and giant breed dogs.

The definition of a large breed dog, by the way, is a dog that will be over 55 pounds when he's full grown, which usually occurs between 10 and 24 months of age, depending on the breed.

Serious Health Problems Often Develop in Puppies Who Grow Too Fast

There are several factors that contribute to the skeletal development of puppies, including genetics, exercise, trauma and nutrition. One of the most important factors is nutrition.

The good news is that nutrition is something you, as a pet owner, have complete control over.

A number of orthopedic diseases, which are problems with a dog's bones, joints, tendons, muscles and nerves, take root in poor feeding practices during the puppy's

growth period. These diseases include osteochondrosis, some forms of hip dysplasia, hypertrophic osteodystrophy and Wobbler's syndrome.

Many large and giant breed dogs are genetically predisposed to grow too fast. Unfortunately, humans continue to help the process along by feeding inappropriate, high-growth pet food formulas to these puppies.

When a puppy's body gets too big, too fast and gains a lot of weight, it puts stress on the developing skeleton. Rapid bone growth can result in structural defects of the bones, which makes the skeleton even less able to bear the increasing body weight.

Sometimes developing cartilage can't keep up with rapid bone growth, and cartilage defects can occur. Also, big dogs have less bone density than smaller breeds, meaning their bones are more fragile and prone to injury.

Diet Influences How Fast a Puppy Grows – It Does Not Influence His Adult Size

Overfeeding an adult dog leads to obesity and serious health conditions like diabetes and heart disease. Overfeeding a puppy during the active, rapid growth period right after weaning leads to skeletal problems. The goal for large and giant breed puppies should be controlled growth – not overgrowth. The size a dog ultimately becomes is primarily dictated by genetics. But the time it takes a dog to reach full adult size can be controlled to a large degree by nutrition.

Protein is Not the Culprit -- Excess Calories and Minerals Are

Researchers have studied the diets of large breed dogs for over 30 years to understand the link between improper nutrition and skeletal problems.

Studies have repeatedly concluded dietary protein levels have no effect on the development of skeletal problems in large and giant breed dogs.

But still today, many breeders of large dogs, owners and even some veterinarians will tell you protein is the problem, even though there is no evidence to prove it.

Protein excess is not the problem. In fact, it's often a dietary protein deficiency that contributes to skeletal problems.

The elements of nutrition that have been scientifically proven to negatively impact skeletal development in puppies are ***excessive calories and high or unbalanced mineral content, specifically calcium and phosphorus.***

Why Excess Mineral Content is a Problem

The bodies of puppies aren't able to control or limit absorption of dietary calcium and certain other minerals.

Absorption, of course, occurs through the intestines. The higher the calcium and mineral content of the diet, the greater the level of absorption and assimilation into the developing bone structure of the puppy. This can disturb the natural process of bone growth and result in lesions in the skeleton and joints.

High mineral concentrations in the diet can quickly cause bone mineral changes that play into skeletal abnormalities in a growing puppy. These include hypertrophic osteodystrophy, also called HOD. This is a severely painful bone disease that affects multiple limbs and causes lameness. Also craniomandibular osteopathy, a disease that affects the bones of the skull, including the lower jaw.

A high mineral content diet has also been shown to cause conformation problems and abnormalities in both stature and weight gain.

Puppies that get too big, too fast and go on to develop orthopedic issues are typically fed a very tasty, high energy, high mineral content diet.

Many of these puppies are free-fed. Others are simply fed too much at each meal. The problematic high energy nutrient in all these diets tends to be too many carbohydrates.

The Right Type of Food for Your Large or Giant Breed Pup

The goal in feeding a large or giant breed puppy is to keep him lean, with controlled growth. A healthy, large or giant breed puppy will thrive on a portion-controlled, balanced, species-appropriate diet. You can feed a spot-on balanced homemade diet or an excellent quality commercially available food.

What about those large breed puppy foods? Traditional puppy foods often provide much higher calorie content than large breed puppies require, causing them to gain too much weight too quickly. This is why pet food manufacturers began producing formulas specifically for large breed puppies.

These are typically diets lower in calorie density (the number of calories per cup or gram of food) than a regular puppy diet. They're also usually lower in calcium on an energy basis.

These are two very important factors for reducing too-rapid growth in big puppies. Some adult foods may also be low calorically, but often they have high calcium content on an energy basis, which is not what you want for a growing large or giant breed pup.

If you're going to feed kibble to a large breed puppy, I recommend you look for special large breed puppy formulas or a formula that is "Approved for all life stages." This means the food is appropriate for growing puppies or adult dogs.

I do not recommend feeding a traditional (high growth) puppy food to large breed puppies.

How Much to Feed

Most vets and breeders agree puppies can be moved to adult foods between six and 10 months of age, depending on the breed, size, and current physical development.

Several factors will play into the amount of food you feed your puppy. They include the dog's age, current weight, anticipated adult weight, her breed, the environment she's in (including the climate), and her activity level.

Puppies eat much more for their weight than adult dogs, and young puppies actually eat quite a bit more than older puppies.

Very young puppies should be fed three to four times a day, in fact, whereas older puppies often do well with twice-daily feedings.

Following feeding guidelines on the back of a dog food bag can give you some guidelines on portions to feed, but remember those are only general guidelines. There's no one-size-fits-all amount that every puppy should be fed, and it certainly depends on what type of food you choose.

Raw-fed puppies need a larger volume of food than kibble-fed puppies, because raw food contains less fat and calories per ounce.

Another common feeding guideline is to allow your pup to eat at her own pace for about 10 minutes three times a day. However, again, there's no one-size-fits-all plan for every puppy, so you need to discuss your own puppy's caloric needs with your vet.

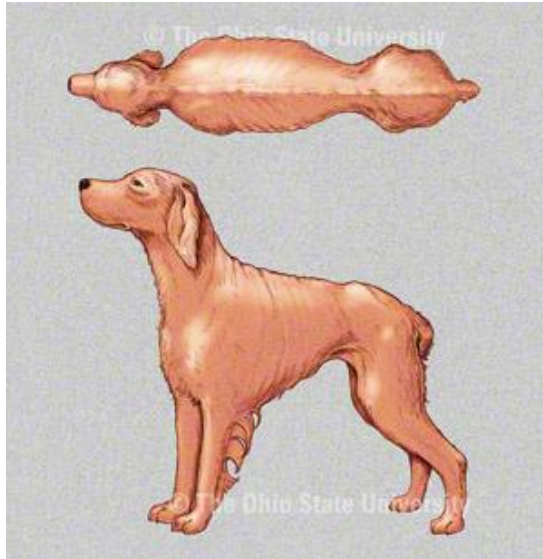
It is recommend you feed your puppy the amount of food required to keep him lean, which is between the 2 and 3 out of 5 body condition score.

Body Condition Scoring Chart

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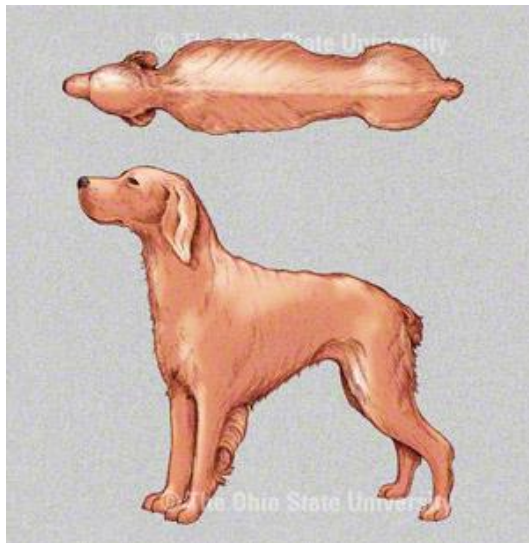
1 = Emaciated

Ribs, lumbar vertebrae, pelvic bones and all body prominences evident from a distance. No discernible body fat. Obvious absence of muscle mass.



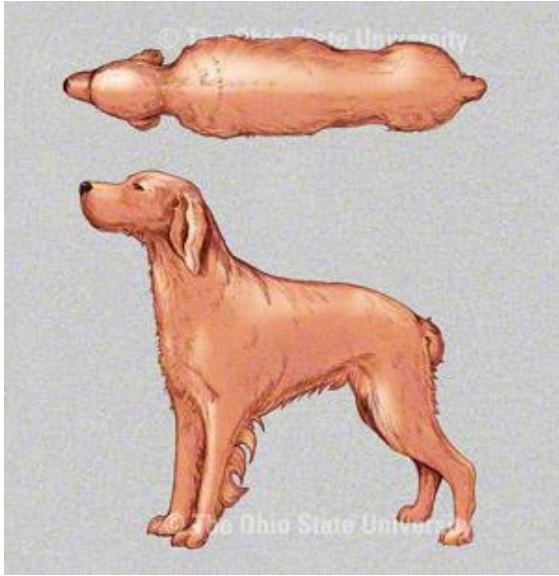
2 = Thin

Ribs easily palpated and may be visible with no palpable fat. Tops of lumbar vertebrae visible. Pelvic bones less prominent. Obvious waist and abdominal tuck.



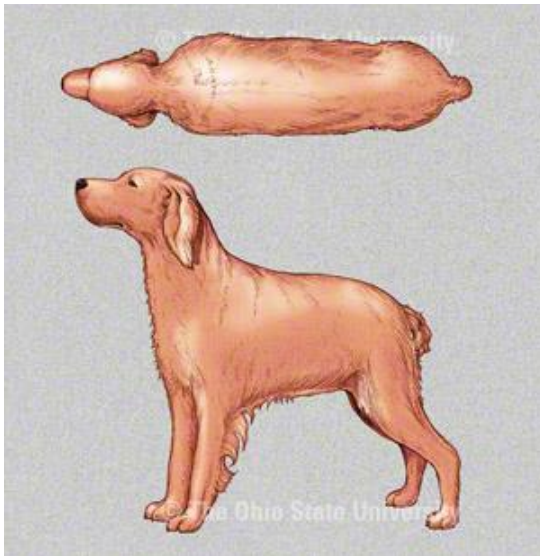
3 = Moderate

Ribs palpable without excess fat covering. Abdomen tucked up when viewed from side.



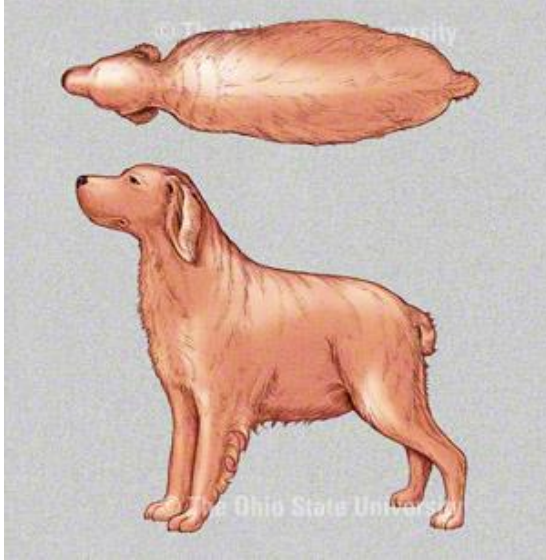
4 = Stout

General fleshy appearance. Ribs palpable with difficulty. Noticeable fat deposits over lumbar spine and tail base. Abdominal tuck may be absent.



5 = Obese

Large fat deposits over chest, spine and tail base. Waist and abdominal tuck absent. Fat deposits on neck and limbs. Abdomen distended.



Remember, you'll need to continually monitor your puppy's condition and activity level. Since puppy appetites go up and down depending on what growth phase they're in, you'll need to adjust the volume of food you feed your puppy and keep him at the appropriate weight throughout his growth period.