

Faera

Rhonda Hovan

Hovan Slow Grow Plan

The goal of this Plan is to produce a slow rate of growth for Golden Retrievers puppies between the ages of birth and four months. The purpose of the slowed growth rate is to permit the healthiest possible development of bones and joints. Rapid growth and overweight have been linked to a greater incidence and severity of orthopedic disease such as hip and elbow dysplasia (Kealy et al, 2000), and panosteitis. Faster growing pups are also more likely to sustain soft tissue injuries during play or exercise. Additionally, there is compelling evidence that heavier pups may be at increased risk for developing cancer later in life, and may have a significantly decreased life span as compared to trim puppies (Kealy et al, 2002).

A slowed rate of growth will cause pups to be shorter and less physically developed than faster growing pups of the same age. However, adult height and body development will not be permanently altered, and these pups will eventually reach their full genetic potential. They do this by growing more slowly, but for a longer period of time, than faster growing pups. That is, the growth curve will be more gradual and even, avoiding the steep, unnatural acceleration that is produced by overfeeding.

The rate of growth is directly related to calorie intake. Culturally, most owners have been conditioned to believe that nutrient and calorie dense foods are beneficial to puppies. But in fact, these can be harmful for they are often in opposition to the manner in which Nature intended young canines to eat and grow. Thousands of years of evolution have designed dogs with an optimal growth rate that is slow and steady, and an ideal body composition that is lean and muscular. Wild fox kits and wolf pups are not roly-poly sedentary youngsters, and the common misconception that a plump pup is healthy and robust turns Nature upside down!

Show prospect pups are particularly at risk for over-nutrition, because their owners are often in a hurry for them to develop the bone, head, coat, and stature of mature, competitive dogs. And it is true that overfed pups will be ahead of their properly trim counterparts in those attributes – temporarily. But while these differences completely disappear with maturity, the potential damage to the health of rapidly growing puppies remains.

To effectively maintain a normal and healthy growth rate, the pup must be quite thin and fit. Since most people are more accustomed to pups that are growing too rapidly, these trim pups may appear extreme to many people, including many veterinarians. And in fact, the perception of “thin” varies from one person to another. Therefore, this Plan includes specific weight and exercise guidelines that have proven successful through many generations of Golden Retrievers. While following these guidelines will not completely eliminate all chance of developing disease, it will allow a pup to become the healthiest adult that his genetic potential permits.

It is important to follow these guidelines closely, because any **excess food is first used for growth**. That is, even if a pup is getting too much food, he may not immediately appear fat – he will simply grow faster. By the time a pup actually looks or feels fat, he is already at an extreme, and growing

far too rapidly. Weigh-ins 1-2 times per week will help ensure that minor deviations from the charts are corrected promptly. Breeders recommending this Plan to their puppy buyers may find increased buyer compliance if they require weights to be recorded on the veterinarian's chart during each puppy visit as a condition of a sales contract or guarantee.

Target Weights: Birth to 10 weeks

Age	Weight	Age	Weight
Birth	1 lb	5 wks	6 lbs
1 wk	2 lbs	6 wks	7 lbs
2 wks	3 lbs	7 wks	8 lbs
3 wks	4 lbs	8 wks	9.5 lbs
4 wks	5 lbs	10 wks	12 lbs

Monitor weights regularly from birth to five weeks, rotating pups as necessary to approximate a gain of one pound per week. Do not be alarmed if the gain is slightly less, particularly in large litters. Try to maintain equal size between all pups, within about 4 ounces. (This is extremely important to accuracy when making comparisons between pups within a litter for the purposes of selecting show prospects.) If gain begins to exceed one pound per week, take mother away for several hours periodically; after two weeks old, she can even be away overnight if necessary.

Wean at approximately five weeks, directly onto a good quality food **formulated specifically for large breed puppies**. There are many good options and the brand selected is not too important, but due to some reports of abnormal bone development, it is highly recommended to **avoid grain-free foods** at least until the puppy is over 20 weeks of age.

Feed two to three times per day, either dry or adding nothing but water. The needs of each puppy will vary with activity level, so it is impossible to recommend a precise amount; although it will probably be approximately $\frac{1}{2}$ cup (dry measure) **per day**, per pup in the beginning. (Not per meal!) This will gradually increase to about $\frac{3}{4}$ cup **per day**, per pup by eight weeks. Very frequently it is necessary to feed several pups separately, since there are usually some that will tend to get more or less than their share from a common feeding bowl. **Please note that it is always more important to feed to correctly manage each individual pup's weight gain, rather than to try to schedule a certain specific amount of food. Therefore, it is vital to weigh each puppy at least 1-2 times per week and adjust each puppy's amount up or down as necessary.**

Continue to feed as above, but cut back to two meals per day at eight weeks. As before, the correct amount of food may vary due to differences among puppies. DO NOT add any vitamin or mineral supplements, such as vitamin C or calcium.

Target Weights: 12-20 weeks

Age	Weight
12 wks.	15-16 lbs.
16 wks.	22-23 lbs.
20 wks.	28-30 lbs.

Notice that the Target Weights above jump several weeks at a time. Between eight and twelve weeks, the recommended weight gain totals about six pounds. This divides to approximately 1.5 lbs. per week, and don't let the pup gain it all the first week! The total weight gain in the next eight weeks from 12 to 20 weeks is 14 lbs., or about 1.75 lbs. per week. **Weigh the puppy 1-2 times per week, then adjust food amount up or down as necessary to keep him on the right track.**

Of course, there may be minor variations from these charts without upsetting the Plan, but keep in mind that sometimes just a few pounds can represent a large percentage. For example, at the 12-week Target Weight of 15 lbs., a three-pound increase to 18 lbs would actually be 20%. So while three pounds may not sound like a lot, 20% would certainly be significant enough to accelerate the growth rate.

Over 20 Weeks

Once the pup has reached the final check point of 20 weeks old, his growth rate will have been slowed for the most critical period of his development. It is now time to begin encouraging a mildly increased growth rate, and this is done by increasing the amount and density (if desired) of food. Pups should to begin to look a bit fuller, but never fat. A general guideline is that at 12 months old, the puppy should weigh approximately 85-90% of its anticipated healthy adult weight. Thus, an average size female should weight about 50-54 lbs at one year old (60 lbs adult), and an average size male would weigh about 60-63 lbs on his first birthday (70 lbs adult).

Of course, it will take some time for growth to catch up completely to overfed puppies. Slow Grow puppies may even appear slightly undersize as they reach the 6-9-month Puppy Class, but should be within lower limits shortly thereafter, usually by approximately seven-to-eight months old. And their growth will continue until they reach their normal genetic potential.

Exercise Recommendations

Exercise is a vital component of the Slow Grow Plan. An active puppy can eat more food, and thus will be more assured of getting enough nutrients. Furthermore, his muscle-to-fat ratio will be more favorable, reinforcing the desired goal of a slowed rate of growth. And the stronger muscles will properly support bones and joints, which combined with greater coordination, will help protect him from injury.

Free-walking is a suitable exercise for dogs of any age, because it permits them to choose their own pace and level of exertion. Of course, this must be done in a safe environment. While this may not possible on a regular basis, perhaps it can be a special weekend treat; or walking on leash is certainly an acceptable alternative.

Begin with approximately one-half mile walks with an eight-week-old pup, four to five days per week, and add about one-half mile every other week. Do not jump ahead to make up for lost weeks when there has been a lapse, but instead resume where the puppy left off. If there has been an extended layoff, begin back several weeks and build up again. An exercise level of three miles per day, four to five times per week, will result in a fit, healthy Golden. Of course, as with any exercise, be very cautious in hot weather; cold is rarely a problem except under extreme circumstances.

Exercise Recommendations, 4-5 times per week

Age	Distance	Age	Distance
8 wks	½ mile	14 wks	2 miles
10 wks	1 mile	16 wks	2.5 miles
12 wks	1.5 miles	18 wks	3 miles

Do not jog, bike, or otherwise roadwork a young Golden under four months of age. Prior to beginning these types of more stressful exercises, it is advisable obtain a preliminary OFA hip evaluation. Four months old is an excellent age to do an OFA preliminary hip x-ray because pups raised on the Slow Grow Plan have a high likelihood of rating very similar at this age as they will at their two-year-old final x-ray (Corley et al, 1997). Only puppies with a preliminary rating of "Good" or "Excellent" should be considered candidates for more serious athletic training. Be aware that a 4-month-old Golden is comparable in physical development to a 4-year-old child (1 month = 1 year up to 24 months), so use an abundance of caution to build speed and distance gradually.

This information is provided for the benefit of all Golden Retrievers, and may be copied only in its entirety (and must include Faera Goldens contact information) to be shared with others on an individual basis. However, any large-scale distribution (Internet or hard copy) or publication is prohibited without the specific written permission of the author.

References

Kealy RD, Lawler DF, Ballam JM, Lust G, Biery DN, Smith GK, Mantz SL. **Evaluation of the effect of limited food consumption on radiographic evidence of osteoarthritis in dogs.** *J Am Vet Med Assoc.* 2000 Dec 1;217(11):1678-80.

Kealy RD, Lawler DF, Ballam JM, Mantz SL, Biery DN, Greeley EH, Lust G, Segre M, Smith GK, Stowe HD. **Effects of diet restriction on life span and age-related changes in dogs** *J Am Vet Med Assoc.* 2002 May 1;220(9):1315-20.

Corley EA, Keller GC, Lattimer JC, et al. **Reliability of early radiographic evaluations for canine hip dysplasia obtained from the standard ventrodorsal radiographic projection.** *J Am Vet Med Assoc* 1997; Vol 211, No. 9; 1142-1146