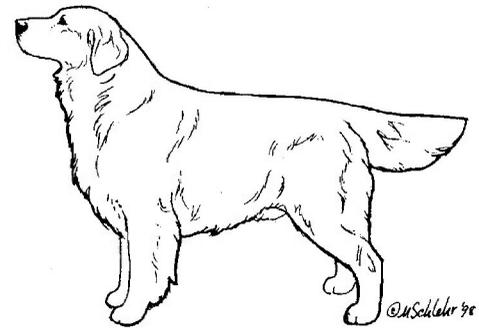
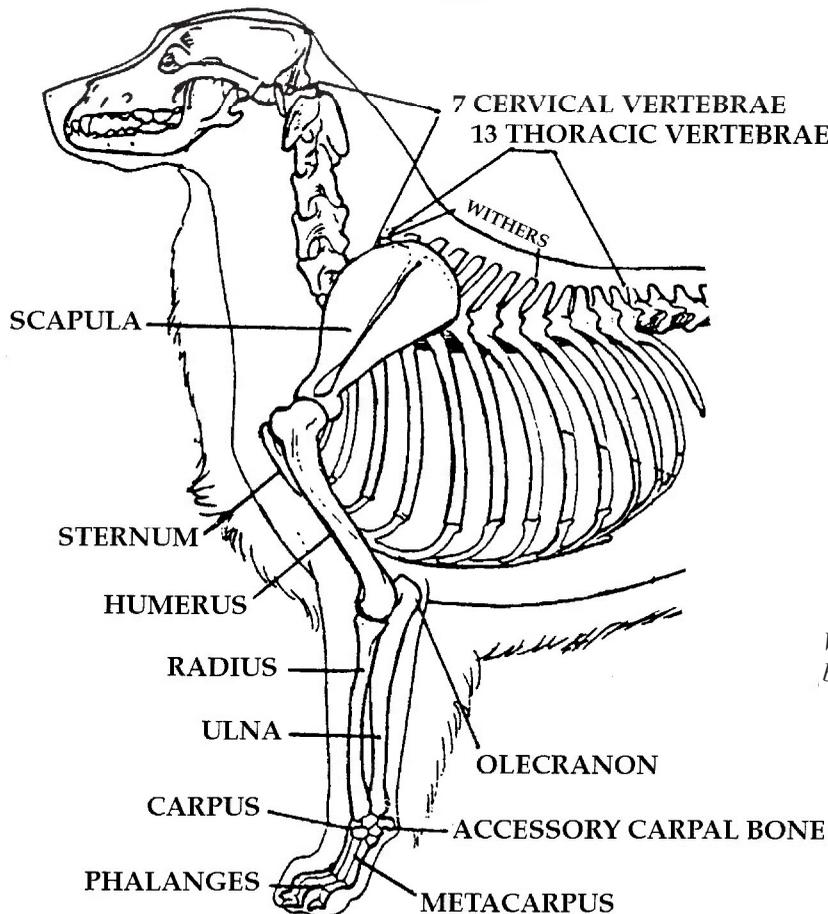


Forequarters...



Well-made forequarters contribute to the balanced, athletic dog we desire.

More than merely support

The Standard:

Muscular, well coordinated with hindquarters and capable of free movement. Shoulder blades long and well laid back with upper tips fairly close together at withers. Upper arms appear about the same length as the blades, setting the elbows back beneath the upper tip of the blades, close to the ribs without looseness. Legs, viewed from the front, straight with good bone, but not to the point of coarseness. Pasterns short and strong, sloping slightly with no suggestion of weakness. Dewclaws on forelegs may be removed, but are normally left on.

Judging the Golden Retriever, Part IX –

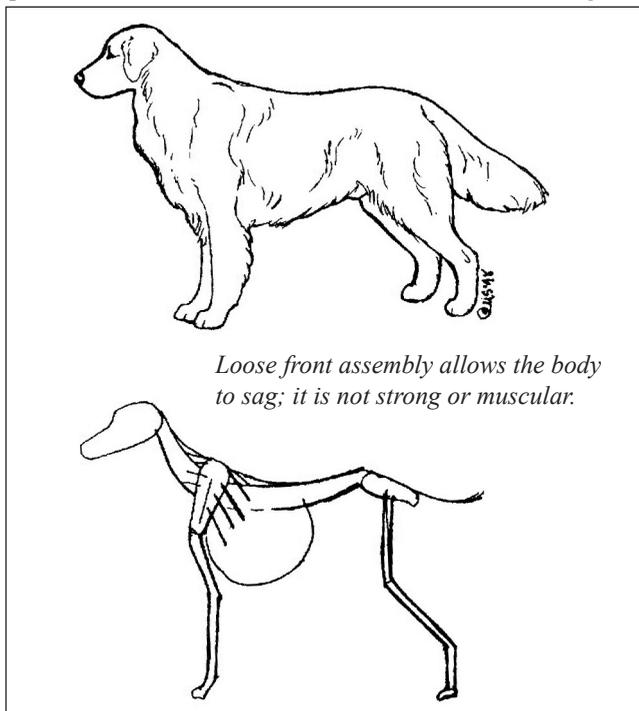
by Marcia Schlehr

(Note: Some drawings are from A study of the Golden Retriever © 1994, by Marcia Schlehr)
 Quotes from the breed standard appear in italics.

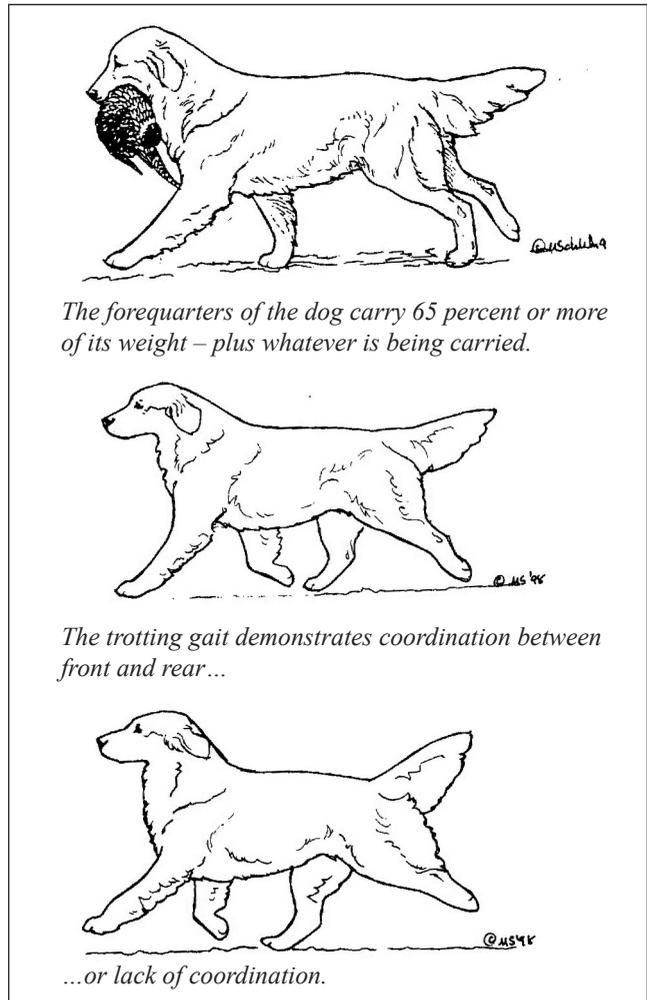
footfallThe forequarters of the dog, that is, the structure of the anterior limbs and the rib cage or chest upon which those limbs are attached, is one of the more complex structures of the dog, and probably the least well understood by the majority of exhibitors, breeders and judges. This may be because so much of the structure of the forequarters is not nearly as obvious to the eye as is that of the hindquarters; one must use the hands to find the points of reference of tips of shoulder blades, their layback, point of shoulder at the shoulder joint, the angle of upper arm, and so forth (see illustrations on left).

“Muscular, well coordinated with hindquarters and capable of free movement.” The area of the shoulders, upper arm and forearm should have firm, well-developed musculature. One does not desire overdone, bulging lumps of muscle (which often indicate compensation for incorrect structure), but the sturdy, muscular neck should blend into a solid shoulder area without protruding tips of scapulae and without a “dip” or depression immediately before or behind the upper part of the scapulae. Weak or slack musculature allows the scapulae to poke up past the spires of the vertebrae with the body sort of hanging like a hammock between the shoulder blades. This is definitely undesirable (see illustrations below).

“... well coordinated with hindquarters” applies both to the balance of angulation and structure between front and rear assemblies in a static pose and to the ability in movement from the front and the rear assemblies to function in harmony. A lack of desired coordination between front and rear can result in many faults in movement. Obviously, if one end is more efficient in moving the dog along than is the other, compensation of some sort must be made in order for the dog to



Loose front assembly allows the body to sag; it is not strong or muscular.



The forequarters of the dog carry 65 percent or more of its weight – plus whatever is being carried.

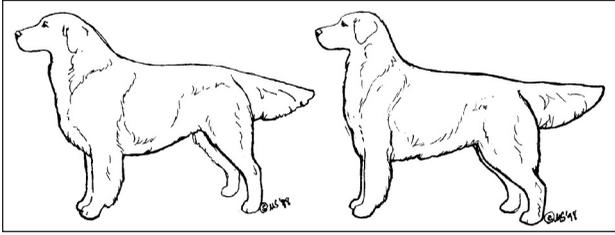
The trotting gait demonstrates coordination between front and rear...

...or lack of coordination.

function. There is no point in having a splendid hindquarter assembly of great power and efficiency if a poorly made front allows the dog to use only a third of a half of that potential power (see illustrations on next page).

The opposite situation, where the front is notably stronger and more efficient than is the rear, is much less often seen, but is also undesirable. However, the front is often able to take over much of the propelling ability as well as the function of support, as anyone who has ever seen a paraplegic dog with its hindquarters in a wheeled cart will attest. Dogs that have lost a hind limb can manage quite well and usually move around much more easily than dogs that have lost a forelimb. The dog carries a much greater part of its weight on the forelimbs, which are also needed for maneuvering. While hindquarters provide some support and also motive power, a single rear support can usually adapt quite well if the front assembly is sound.

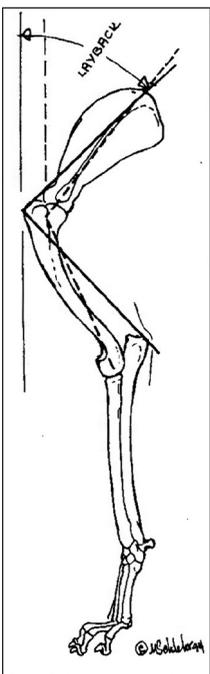
“... capable of free movement.” What this means is that the entire forelimb, from scapula to toes, is able to be well



Both dogs above are unbalanced, but the dog on the left will prove more enduring than the one on the right, whose poor front assembly cannot stand up to the stresses it will receive.

utilized. Nothing appears restricted or held back; the reach and swing of the foreleg is unhindered by incorrect structure of poor musculature. Specifically, the scapula is able to swing forward and backward on the rib cage as if on a pivot near the top end. There is no bony joint there, but the scapula is bound to the body with various strap-like muscles that allow the pivot-like motion (and also a degree of sliding motion along the rib cage), and some away from the rib cage. The shoulder joint (between scapula and humerus) and the elbow joint (between humerus and radius/ulna) also appear to be freely moving hinge joints, capable of opening to great extent. Viewed from the front, this freedom of movement is seen differently, as the leg from the shoulder joint downward moves very much in a single plane front to back to front. The scapula does slide slightly around towards the front of the rib cage as it moves forward, but this is nearly impossible to see except in slow-motion filming of a lean, short-coated breed. What one should see from the front is apparently straight legs moving in clean planes from the shoulder joint downwards, without any notable sideways deviation or twisting, and an evenly cadenced smoothness of movement without jarring or pounding.

One should never mistake over-reaching, padding, flailing, flipping, overextension, or kicking up as "free movement." The use of the limbs must always be well controlled and efficient; these deviations indicate the opposite. "Shoulder blades long and well laid back with upper tips fairly close together at withers." Good length of scapula gives a mechanical advantage of leverage, and also offers more room for attachment of the muscles that both hold the scapula to the body and move it. *Well laid back* in the retriever means an angle of approximately 30 to 35 degrees, measured off the vertical in side view. The layback angle of 45 degrees in the standing dog espoused by MacDowell Lyon is based on an erroneous assumption that did not take into account the forward swing of the



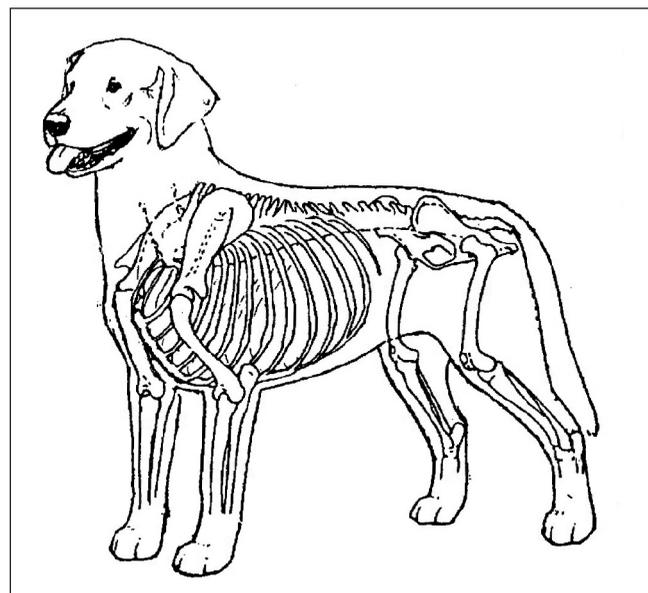
Measurement of layback will vary depending on what points are chosen to measure from. The dashed line represents actual (functional) angulation.

scapula in action; in a dog of normal leg length and normal conformation, it is not possible (not necessary) to achieve a true 45-degree angle of scapula in the standing dog. In action, the blade may at times assume that angle on the forward reach.

As well as "layback" of scapula, we may speak of "lay-on" and "lay-in." Lay-on refers to the manner in which the scapula lies on the rib cage (as viewed from the front), with the upper tips much closer together than the lower end at the shoulder joint. The scapula is not a straight, flat surface but on the side that lies against the ribs has a gentle curve that fits the curve of the rib cage. If one is viewing the dog directly above at the shoulder/withers area, it is possible to see (and feel) the lay-on of the scapula, and also the lay-in, which means that the forward edge of the scapula lies slightly closer to the central plane of the dog than does the rearward edge. This is possible because of the curvature of the rib cage with the first three or four ribs being smaller and narrower than those behind them. A badly shaped rib cage, such as the barrel shape with widely rounded ribs or one lacking forechest development, does not offer the proper surface for the scapulae to work efficiently upon.

The upper tips of the scapulae are *fairly close together* at the withers; that is, centered at about the second or third thoracic vertebrae, with roughly 1½ to 2 inches between the tips (in a mature dog). This can vary depending upon physical condition, size of dog, and how the shoulder blades fit upon the dog. A much wider distance between the tips may indicate scapulae that are set far forward, apparently on the dog's neck, or scapulae that are too short to reach up and around the rib cage. Tips that are too close together when the dog is standing normally often indicate that the dog's ribcage has sunk down between the forelimb assemblies, usually a result of poor musculature and/or poor physical condition.

"Upper arms appear about the same length as the blades." A key word here is the term *appear*. When we "eyeball" the standing dog, the distance from tip of scapula to point of shoulder should approximately equal the distance from the point of shoulder to the point of the elbow. This is a



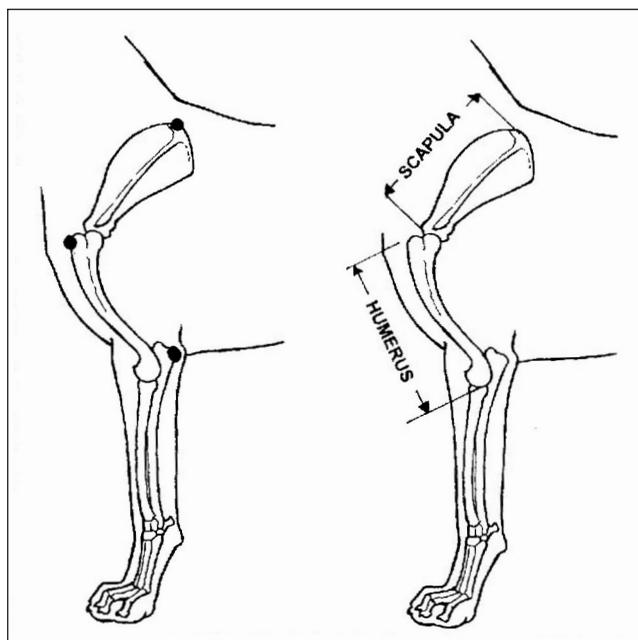
Three-quarters view of the skeletal structure.

visual effect and does not mean that the actual length of the bones, scapula and humerus, are equal. They are not. The drawings will make this clear. In a visual assessment, the length from upper tip of scapula to the point of the shoulder includes the width of the humerus at the shoulder joint, and the length from point of shoulder to elbow is not a true measure of the humerus' length, either. However, since we aren't using a tape measure or calipers in the judging assessment, a visual approximation is sufficient. Requesting the structure to fit this description helps assure that there is sufficient length of upper arm for optimum efficiency and allows for correct structure.

"... setting the elbows back beneath the upper tip of the blades..." Again using a visual assessment, this positions the elbow rather close beneath the center of gravity and gives balanced support, enabling the dog to shift weight easily (utilizing head and hindquarters) for agility. An upright front with the elbows positioned forward puts stress on the body's support mechanism – the muscles, tendons, and ligaments that hold the body between the front limbs – since the support is then farther away from the center of gravity. An upright humerus is also less capable of free movement – it appears restricted.

"... close to the ribs without looseness." The elbows close to the body again give better support. There should be no wide space between elbow and ribs that would indicate a too-wide front, or "out-at-elbows" (often loose or wavering in movement), or a lack of ribbing resulting in obvious "armpits" through which one can pass the width of a hand – all notable faults. Rarely, one sees elbows too tight to the body (usually the result of a shallow and/or narrow ribcage), giving a "tied-in" appearance to the front and possibly a base-wide footfall.

"Legs, viewed from the front, straight..." The front view shows legs that are a straight column of support from the point of the shoulder right down to the foot. The toes may appear to point very *slightly* outward from the center line without incurring a penalty, as long as the feet land squarely with equal weight on all toes when in movement. Feet that

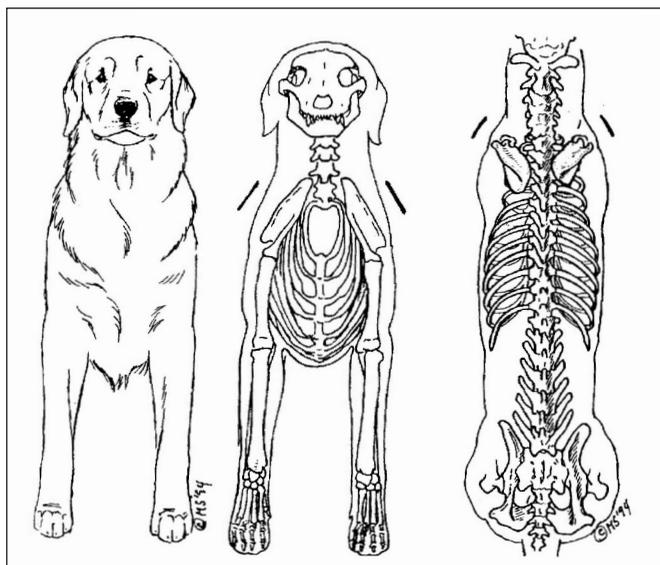


Points for visual assessment give an effect of equal lengths...but actual measurement of the bones is different.

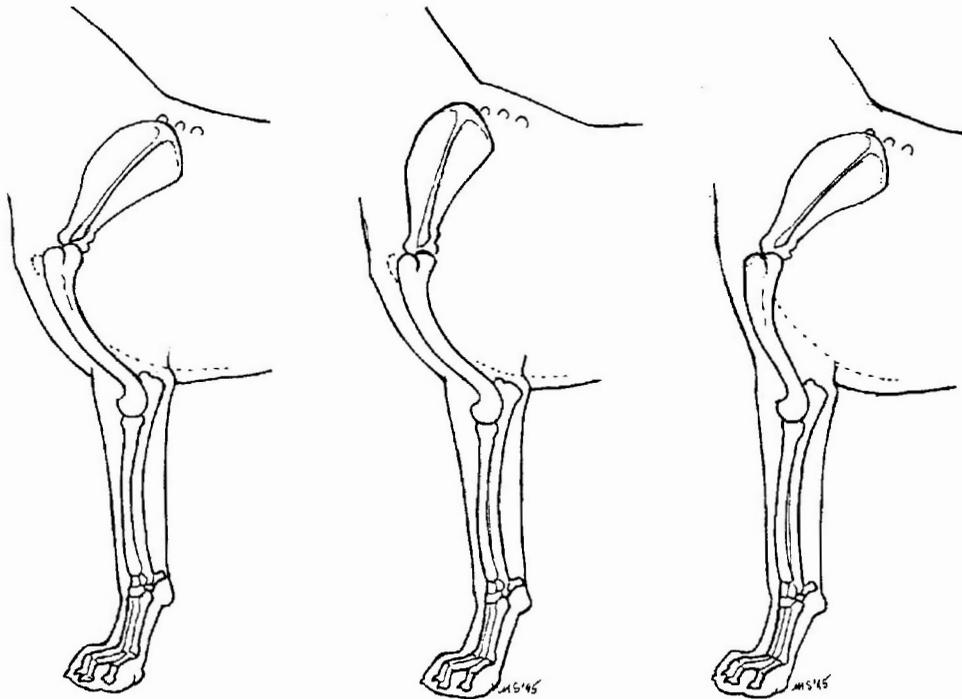
are "dead straight" when standing will sometimes land on the outer side of the foot when the leg is inclined towards the center line in movement; after continued impact this tends to weaken the pastern and turn the toes inward to produce what is called "pin-toes." Legs viewed from the front that deviate from straight (appear to be bowed, splay outward, and appear crooked for "fiddle-fronted") weaken the line of support. In movement, legs that when viewed from the front show any notable lateral movement (winging out of elbows, throwing feet out, swinging legs out in a paddling motion) or which appear to twist as weight is borne are also faulty, as these conditions all detract from soundness and efficiency.

"...with good bone, but not to the point of coarseness." Please note the term *good bone*. This denotes quality, not just size. **Good** bone is dense and hard; huge bone is relatively porous, less dense, and is not necessarily stronger. Bone as used in this sense also refers to the apparent "substance" of the leg as a whole, and can be taken to include the lean, hard muscle and the cleanly delineated tendon and ligaments of the leg, particularly the lower part of the leg. The legs should never appear "beefy." We want the strong, clean look of the athlete, not a "draft-horse" appearance. Excess size or substance (i.e., weight to haul around) is only a detriment to the agile, athletic, enduring canine that the Golden should be. Think decathlon competitor rather than weight lifter. While the Golden is not a fine-boned or overly refined dog, coarseness is specifically warned against here as the temptation is very strong to prefer the look of the more substantial animal. Remember that the Golden must be a dog of *moderation*, never massiveness.

"Pasterns short and strong, sloping slightly with no suggestion of weakness." Long pasterns and notable slanting pasterns are indications of weakness, and often also indicate overall structure that is incorrectly too rangy or loosely assembled. The tendons must be taut, firm and strong,



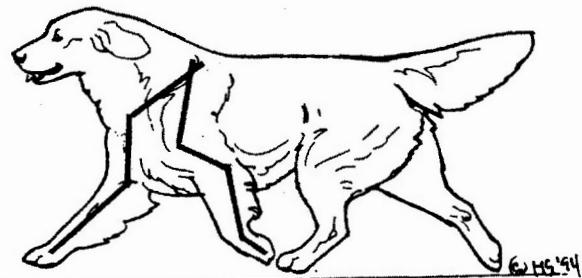
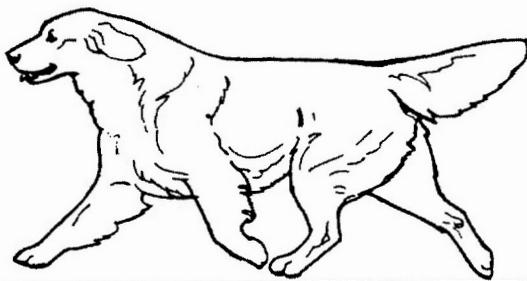
Front view with lay-on of scapula indicated (middle); top view with lay-in of scapula indicated (right).



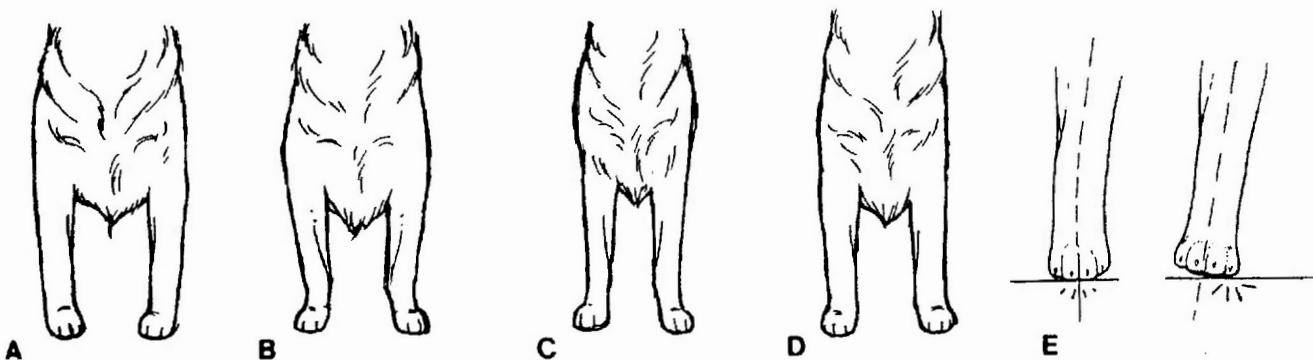
Left illustration – balanced front has the elbow beneath the upper tip of scapula.

Middle illustration – Upright scapula can restrict front reach and weaken the neck structure.

Right illustration – upright humerus (upper arm) moves the front support farther in front of the center of gravity and often results in inefficient movement.



The range of motion of the scapula (and upper arm) contributes to stride length as well as flexibility and suppleness



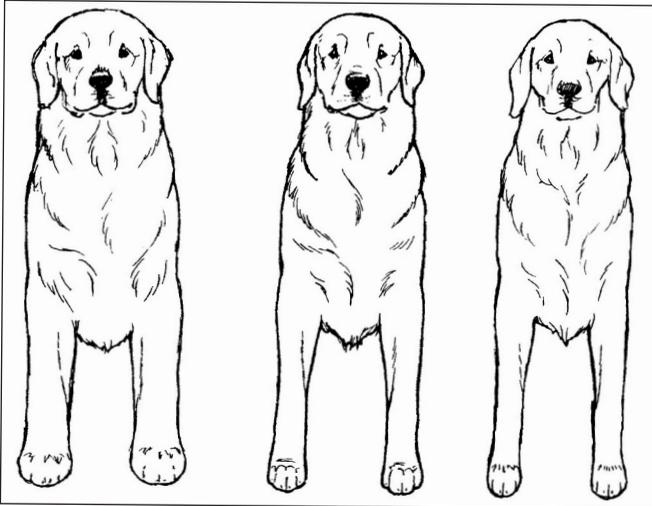
Deviations from "straight" in front view disrupt the column of support and will also be evident in less-efficient movement.

A. Wide front, toes turning in.

B. "Fiddle-front" – loose elbows, feet turning outward.

C. Narrow front – "tied-in." Lack of chest is a severe fault.

D. A good front, with acceptable, very slight inclination of foot; in movement, this foot strikes the ground straight on (E), rather than on the outside toes.

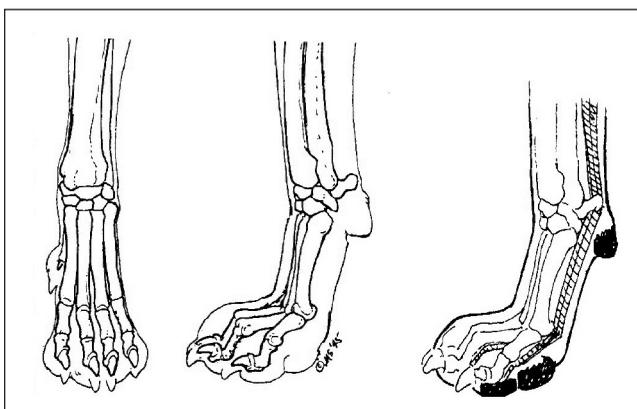


*Left illustration – overdone, coarse
Middle illustration – correct, moderate
Right illustration – lacks substance; light-boned*

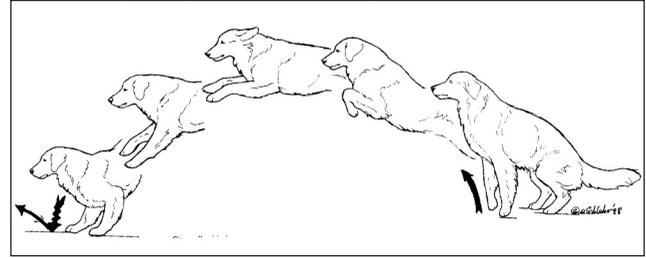
allowing just a slight slant to the pasterns in order to serve as a shock-absorbing device. Pasterns that are too upright lack the resiliency and springiness that are essential, and can have a tendency to knuckle over, which is an unstable condition subject to injury and very undesirable. Pasterns should be trimmed enough to show the correct slight slope and desirable foot, but never disguised with excess feather or overtrimmed. “Carved” pasterns and feet are objectionable.

“Dewclaws on forelegs may be removed, but are normally left on.” Whether one removes the front dewclaws (at about three days of age) is optional and certainly is not a consideration in judging. Some believe that removal obviates the possibility of dewclaws being injured in the field. (Although in more than 40 years of owning and working Golden Retrievers, I’ve never had a dog injure a dewclaw.) Some show people think the leg “looks better” without dewclaws.

Normally the Golden’s dewclaws are quite inconspicuous



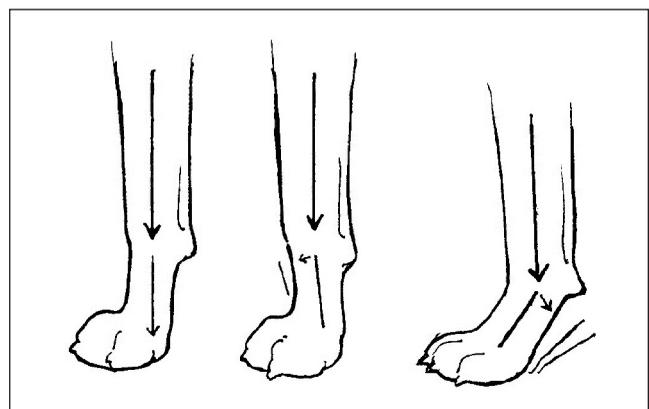
Left and middle: Front and side views of skeletal structure of front foot. Right: Foot with pads (black) indicated and major ligaments and tendons (shaded). Ligaments and tendons act like “bungee cords,” providing resilience and spring as well as operating the skeletal components of the lower leg.



Strong, flexible forequarters supply initial lift and reach, absorbing the impact of landing and rebounding into the next stride.

and are firmly attached, and no more subject to injury than any other toes. There is really little practical reason to have them removed. Dogs also do use these rudimentary “thumbs” for purposes such as holding and climbing. This sentence was added to the breed standard *only* to make clear that *if* dewclaws were removed, the judge was not to penalize the dog as being changed by artificial means.

This is perhaps a good place to mention trimming of toenails. Nails should be kept neatly trimmed; they should not touch the floor when the dog is standing normally on a hard surface. However, neither should the nails be cut back so short that they are of no use. Retrievers use their toenails to help gain purchase on the ground when running and turning, when climbing up banks or over logs. If anyone recommends cutting back the nails just past the bleeding point in order to make the foot “look nice,” even with the dog under anesthesia, you might suggest they try it first on their own fingernails. When the anesthetic wears off, the dog still has painfully sore toes for some time. A nail that is cut to short as to open the blood vessel within it creates an opening for debris and bacteria to enter. Even cauterizing it with silver nitrate does not eliminate that possibility. Dogs has developed abscesses and severe lameness as a result of this misguided practice. ❖



Left and middle: the too-upright pastern lacks spring; force is in a straight line. With continued stress it begins to knuckle over, resulting in a very unstable joint. Right: The too-sloping pastern may indicate loose ligamentation. It allows too much downward movement, and is subject to injury and further weakening.