

WHEN A DOG IS NOT A HORSE, OF COURSE

MYTHBUSTER PART 1: THE “PASTER”

by C. Miller

Many of our early dog experts were horse experts – we still hear the horsey jargon in our everyday conversations about dogs and even some horse terminology in some of our standards. Horses and dogs are both quadrupeds, but they differ anatomically in many important ways. As dog people, it is important to be able to recognize these differences.

We dog folks have borrowed the term “pastern” from horse vocabulary. Although at first glance the joints on dogs and horses look the same, horse pasterns and dog pasterns actually are different and occur on different joints on the respective animals.

Let’s look at a dog’s leg in Plate 1. All four-legged animals have basically 5 sections in the foreleg. (Even humans have the same segments, believe it or not!) The bones are basically the same; even the positioning of the bones is basically the same on both horses and dogs. What differs is our perspective of where the “pastern” is placed on both animals.

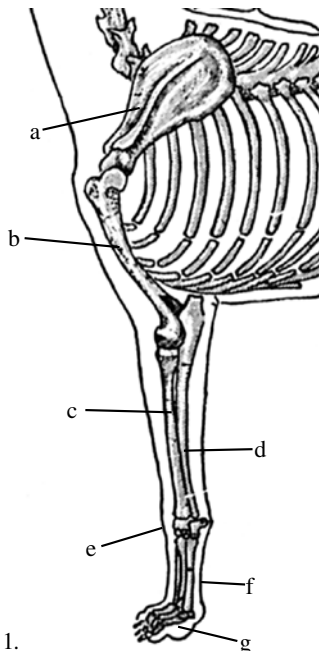


Plate 1.

The five major parts of the leg can be clearly seen in the above drawing. They are: the shoulder (scapula) (a), the upper arm (humerus) (b), the foreleg (made up of the radius and ulna) (c & d), the pastern (metacarpals) (f), and the toes (phalanges) (g).

For fun I am including a real dog skeleton (top of next column) in plate 2. There’s nothing new really new here, but I labeled clearly the 5 parts of the dog leg.

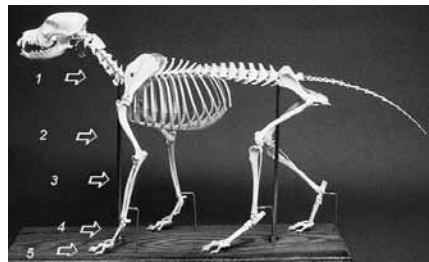


Plate 2 - a dog

And a horse at right in Plate 3.

The corresponding parts on both Plates 2 & 3 are:

- 1 – scapula
- 2 – humerus
- 3 – radius/ulna (in the horse they are fused together)
- 4 – metacarpals (cannon bones in a horse)
- 5 – phalanges (pastern bones and coffin bone in horse)

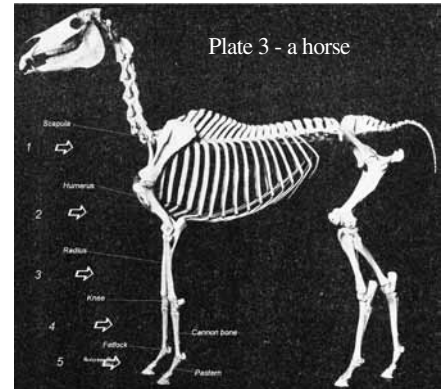
This drawing was taken from McDowell Lyon’s *The Dog in Action*.

- a. shoulder, or scapula
- b. upper arm, or humerus
- c. radius
- d. ulna
- e. pastern, wrist, or carpal joint
- f. pastern, or metacarpals
- g. toes or phalanges

It’s a pretty good drawing as drawings go, as it shows decent canine proportion with the humerus being longer than the scapula. It’s respectable enough to give a clear idea of canine front structure for the uninitiated and a good refresher for those more familiar with canine construction.

The first thing the observant person will notice when comparing the front skeleton from the scapula down is that the dog has comparatively long humerus and radius/ulna bones. This is typical of animals that have quick acceleration and relatively short stamina. Dogs, pound for pound, are faster than horses, a good quarter horse at about 47+ mph compares to the much smaller greyhound at 39+ mph and the speedy canine, the coyote, at 43 mph¹.

¹ Speed of Animals, www.infonplease.com/ipa/A0004737.html



Now, back to the topic, that elusive and somewhat misunderstood area of the dog: the pastern.

In Plates 2 & 3, pay particular attention to the joint located between areas 3 and 4. On the dog skeleton, we call this joint the “pastern joint” or sometimes “the wrist.” Our own standard reads:

“Borzo Standard Forelegs

“Bones straight and somewhat flattened like blades, with the narrower edge forward. The elbows have free play and are turned neither in nor out. Pasterns strong.” The AKC Dog Book defines it as: “PASTER: Commonly recognized as the region of the foreleg between the carpus or wrist and the digits, i.e., the metacarpus.” (*The Complete Dog Book*, 1992, New York)

The horse’s pastern, in contrast, is area 5 (which corresponds to the foot of the dog). Wikipedia compares it thus: “The **pastern** is a part of the horse between the fetlock joint and the hoof, or between the wrist and forepaw of a dog.” The horse’s knee is between area 3 and 4. This is the joint that is equal to the dog’s wrist or pastern joint.

A horse’s pastern is area 5, which does not correspond to the dog’s pastern, which is area 4. Although, initially, the horse’s pastern looks to be identical to the dog’s, it is not; it is an illusion created by the relative length of the canid humerus and radius and the comparative shortness of the horses’.

Often times we hear people exclaim, “Her pasterns are too long!” or “His pasterns are too upright!” when speaking of dogs. Sometimes people say things they’ve heard over and over – and sometimes these misconceptions come straight from the horsey world. The main problem with this is that we are comparing two different kinds of animals – and even two different

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areas, as I have shown in this article.

I hope this short article has been informative. I also hope that we can actually look at canine anatomy and not equine when figuring out good structure on our Borzoi. Misunderstandings feed misconceptions – and these can prove harmful in the long run. No one should want a dog that is built like a horse in the front! But we continue, to our detriment, to compare the two, including using the idiom “pastern” on dogs to describe an area that equates to “knee” on the horse.

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