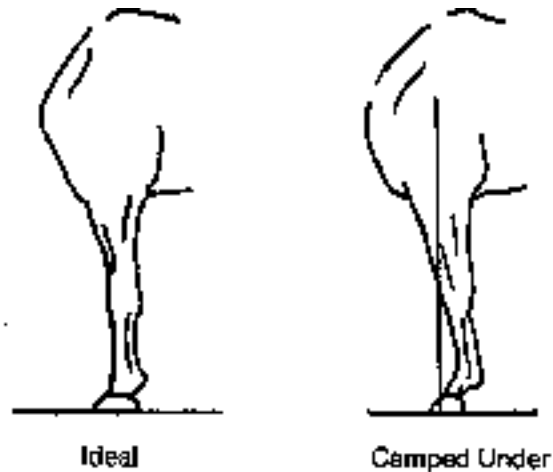


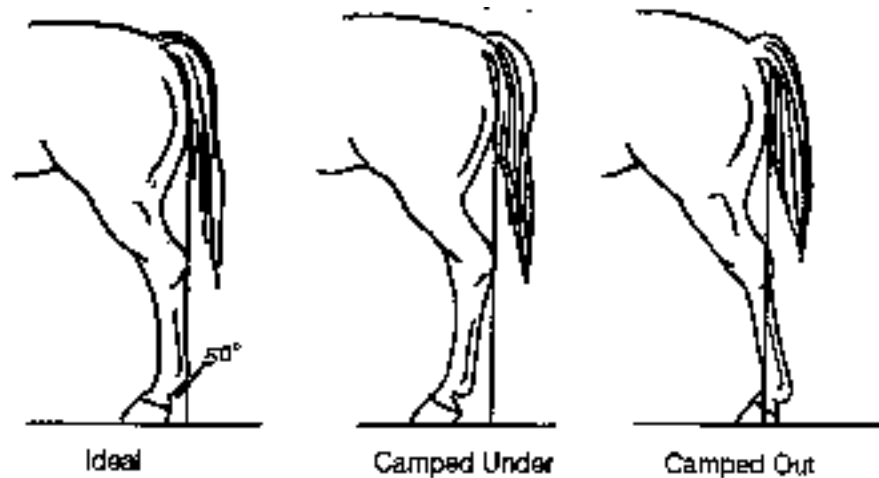
## Front and/or Hind Leg Defects

| Front and/or Hind Leg Defects Viewing from the Side |   |
|---|---|
| Standing Under (Camped Under)                       |   |
| Front Legs  | <ul style="list-style-type: none"> <li>The entire foreleg from the elbow down is too far under the body</li> <li>Places excess weight on the forelegs</li> </ul>  |
| Rear Legs   | <ul style="list-style-type: none"> <li>The entire hind leg is placed too far forward under the body</li> <li>The horse may also be sickle hocked or post legged; stress is the same as for sickle hocks or post legged, respectively</li> </ul> |
| Camped Out  |   |
| Front Legs  | <ul style="list-style-type: none"> <li>The entire hind leg is placed too far back</li> </ul>  |
| Rear Legs   | <ul style="list-style-type: none"> <li>The horse may also have steep rear pasterns and/or be sickle hocked; stress is the same as for sickle hocks</li> </ul>   |

### Front Legs



### Rear Legs



| Pastern and Hoof Defects                |  |
|---|--|
| Steep Pasterns                          | <ul style="list-style-type: none"> <li>• Often accompanied by a steep shoulder</li> <li>• Pastern length may be short or long</li> <li>• Increases the effect of concussion on the fetlock joint, pastern joint bone</li> <li>• Called a "club foot" if the hoof angle is also too steep</li> <li>• Predisposed to osselets, ringbone and navicular disease</li> </ul> |
| Weak Pasterns                           | <ul style="list-style-type: none"> <li>• Usually too long and sloping</li> <li>• In extreme cases, the fetlock may touch the ground when the horse travels</li> <li>• Predisposed to injury of the tendons, ligaments and the fetlock joint</li> </ul>   |
| Broken Hoof/<br>Pastern Axis<br>(Angle) | <ul style="list-style-type: none"> <li>• The angle of the pastern and the angle of the hoof are not the same</li> <li>• When the pastern is more sloped than the front wall of the hoof, it is called a "coon" foot</li> <li>• Places additional strain on the tendons and ligaments</li> </ul>  |



**Type 1**  
Broken foot in which the foot axis is less upright than the pastern axis.



**Type 2**  
Broken foot in which the foot axis is more upright than the pastern axis. Also called "coon foot".



**Correct Pasterns**



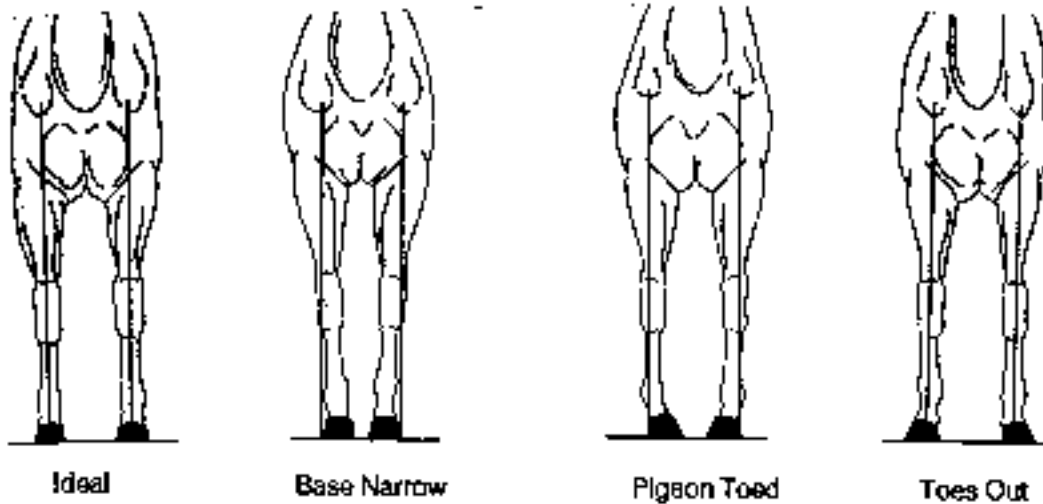
**Steep Pasterns**



**Weak Pasterns**

**Viewing from the Front/Rear**

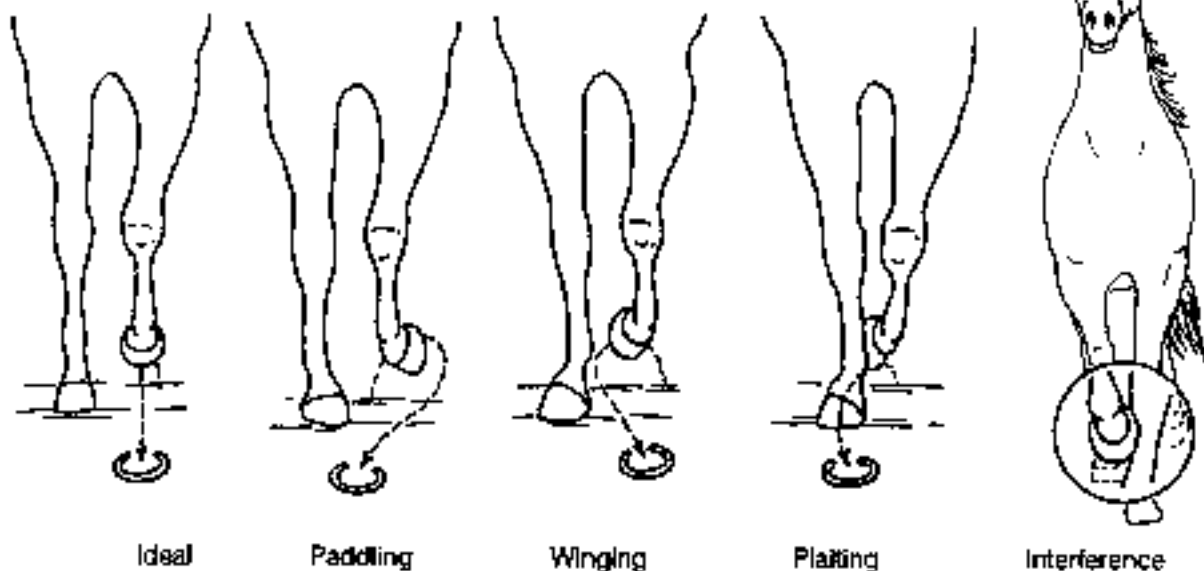
|                        |   |
|------------------------|---|
| Base Narrow            | <ul style="list-style-type: none"> <li>The forelegs (hind legs) are closer together at the ground than at the top of the leg</li> </ul>   |
| Base Wide              | <ul style="list-style-type: none"> <li>The forelegs (hind legs) are farther apart at the ground than at the top of the leg</li> <li>May be accompanied by toe in or toe out (most common) conformation</li> <li>Places more weight and stress on the inside of the legs</li> <li>Predisposed to windpuffs, ringbone and sidebone</li> </ul> |
| Toe In (Pigeon Toed)   | <ul style="list-style-type: none"> <li>The toes point toward each other</li> <li>Usually seen with base narrow conformation</li> </ul>  |
| Toe Out (Splay Footed) | <ul style="list-style-type: none"> <li>The toes point away from each other</li> <li>May be seen with either base narrow or base wide conformation</li> <li>Usually present if the horse is cow hocked</li> </ul>  |

**Front**

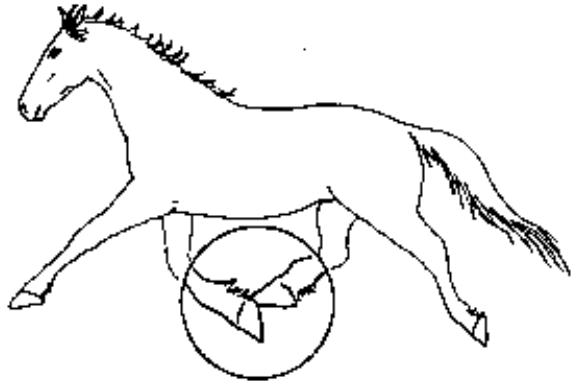
## Travel (Way of Going) – Deviations from Ideal

| Viewing from the Front/Rear         |  |
|-------------------------------------|--|
| Paddling<br>(Winging Out)           | <ul style="list-style-type: none"> <li>• Throwing the feet outward while in motion</li> <li>• Usually associated with toe-in conformation</li> </ul>   |
| Winging<br>(Winging In,<br>Dishing) | <ul style="list-style-type: none"> <li>• Throwing the feet inward while in motion</li> <li>• Usually associated with toe-out conformation</li> <li>• More serious than paddling since it may lead to interference when the horse moves</li> </ul>  |
| Plaiting<br>(Rope Walking)          | <ul style="list-style-type: none"> <li>• Twisting of the striding leg around the supporting leg so that the horse appears to be walking tightrope</li> <li>• One forefoot may appear to land directly in front of the other</li> <li>• More serious than paddling since it may lead to interference and stumbling</li> </ul> |
| Interference                        | <ul style="list-style-type: none"> <li>• When one foreleg (hind leg) strikes the opposite foreleg (hind leg) while in motion</li> </ul>  |

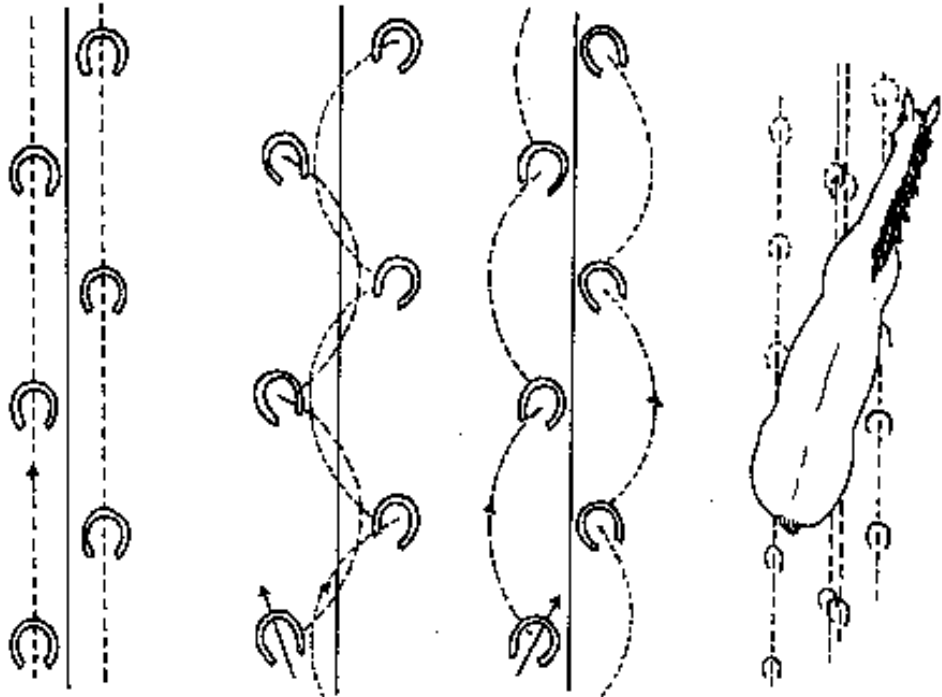
### Front



| Viewing from the Side |  |
|-----------------------|--|
| Overreaching          | <ul style="list-style-type: none"><li>• The hind foot strikes the heel of the forefoot before the forefoot leaves the ground</li><li>• If the horse is shod, the front shoe may be pulled off by the hind foot</li></ul> |
| Forging               | <ul style="list-style-type: none"><li>• The toe of the hind foot strikes the sole or shoe of the forefoot while in motion</li></ul>  |
| Scalping              | <ul style="list-style-type: none"><li>• The toe of the forefoot strikes the coronary band of the hind foot</li></ul>   |



Overreaching



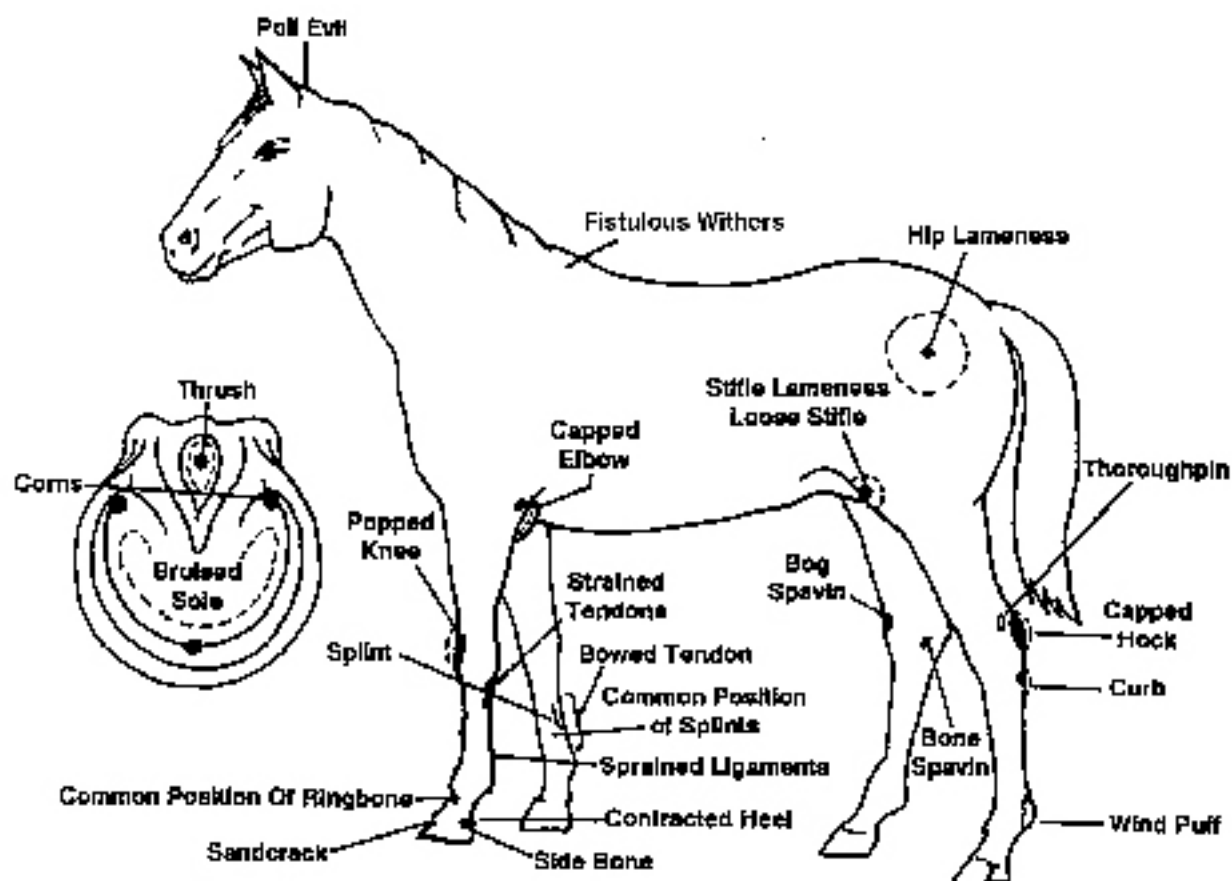
Normal

Horse that Toes Out

Horse that Toes In

Dog Style Movement

## Locations of Unsoundnesses and Blemishes



Note:

No descriptions have been provided for:

- Strained Tendons
- Sprained Ligaments
- Stifle Lameness (Loose Stifle)
- Hip Lameness
- Bruised Sole
- Corns

## Blemishes and Unsoundnesses

| Definitions                          |   |
|--------------------------------------|---|
| Blemish (B)                          | <ul style="list-style-type: none"> <li>An injury or imperfection which affects the value of the horse, but not its serviceability. For example: wire cuts, rope burns, capped hocks, etc.</li> </ul>                                      |
| Unsoundness (U)                      | <ul style="list-style-type: none"> <li>An injury or abnormality which affects the value of the horse and its serviceability. For example: blindness, ringbone, navicular disease, etc.</li> </ul>   |
| Common Unsoundnesses and Blemishes   |   |
| Upper Body                           |   |
| Blindness (U)<br>(Not on diagram)    | <ul style="list-style-type: none"> <li>Complete lack of vision in one or both eyes</li> <li>May be caused by injury or disease</li> <li>Blind horses will not react to quick motions near the affected eye(s)</li> </ul>                  |
| Fistulous Withers (U)                | <ul style="list-style-type: none"> <li>An inflammation of the withers</li> <li>Usually caused by bruising</li> </ul>  |
| Hernia (U)<br>(Not on diagram)       | <ul style="list-style-type: none"> <li>The protrusion of any internal organ through the body wall</li> <li>Usually seen in the abdominal, umbilical or scrotal areas</li> </ul>   |
| Monkey Mouth (U)<br>(Not on diagram) | <ul style="list-style-type: none"> <li>A hereditary condition in which the lower jaw is longer than the upper jaw</li> </ul>  |
| Parrot Mouth (U)<br>(Not on diagram) | <ul style="list-style-type: none"> <li>A hereditary condition in which the lower jaw is shorter than the upper jaw</li> </ul>   |
| Poll Evil (U)                        | <ul style="list-style-type: none"> <li>An inflamed area between the ears</li> <li>Usually caused by a bruise in the poll region</li> </ul>  |
| Feet and Legs                        |   |
| Bog Spavin (U, B)                    | <ul style="list-style-type: none"> <li>A soft filling of the natural depression on the front and inside of the hock joint</li> <li>Usually due to faulty conformation or injury</li> <li>Rarely causes lameness</li> </ul>                |
| Bone Spavin (U)<br>(Jack Spavin)     | <ul style="list-style-type: none"> <li>A bony enlargement on the inside and front lower hock where the hock tapers into the cannon bone</li> <li>Usually due to faulty conformation or injury</li> <li>Usually causes lameness</li> </ul> |

|   |   |
|---|---|
| Bowed Tendon (U)                            | <ul style="list-style-type: none"> <li>• An enlargement of any or all of the tendons and ligaments behind the cannon</li> <li>• Caused by excess stretching of the tendon due to stress or faulty conformation</li> <li>• Occurs most commonly in the forelegs</li> </ul>   |
| Capped Elbow (Soft Boil) (B)                | <ul style="list-style-type: none"> <li>• A soft fluid-filled or firm swelling at the point of the elbow</li> </ul>  |
| Capped Hock (U, B)                          | <ul style="list-style-type: none"> <li>• A firm enlargement on the point of the hock</li> <li>• Due to injury</li> <li>• Rarely causes lameness</li> </ul>  |
| Contracted Heel (U, B)                      | <ul style="list-style-type: none"> <li>• The hoof is narrower than normal (contracted), especially at the heel</li> <li>• Most common in the forelegs</li> <li>• Often due to improper shoeing</li> </ul>   |
| Curb (U, B)                                 | <ul style="list-style-type: none"> <li>• An enlargement of the ligament found on the upper rear part of the cannon the hock (the plantar ligament)</li> <li>• Caused by injury or faulty conformation</li> <li>• May cause lameness</li> </ul>  |
| Founder (Laminitis) (U)<br>(Not on diagram) | <ul style="list-style-type: none"> <li>• An inflammation of the sensitive laminae of the foot</li> <li>• Characterized by horizontal “founder rings” in the hoof wall</li> <li>• Usually more severe in the front feet</li> <li>• In severe cases, the horse may stand camped out in front to relieve pressure on the front feet</li> </ul> |
| Popped Knee (U, B)                          | <ul style="list-style-type: none"> <li>• A swelling of the front of the knee</li> <li>• Usually caused by injury or concussion</li> </ul>   |
| Ringbone (U, B)                             | <ul style="list-style-type: none"> <li>• Bony enlargement(s) on one or more bones and/or joints of the pastern region</li> <li>• Most common in the forelegs</li> <li>• Caused by injury or faulty conformation</li> </ul>  |
| Sand Cracks (U, B)                          | <ul style="list-style-type: none"> <li>• Cracks in the hoof wall</li> <li>• They may start at the coronet and go down, or at the bottom of the hoof wall and go up</li> <li>• Usually caused by injury or interference</li> </ul>   |
| Sidebone (U, B)                             | <ul style="list-style-type: none"> <li>• Bony enlargement(s) above and to the rear of the hoof</li> <li>• Most common in the forelegs</li> <li>• Usually caused by concussion due to faulty conformation</li> </ul>   |



|                                |  |
|--------------------------------|--|
| Splint (U, B)                  | <ul style="list-style-type: none"> <li>• A calcification (bone growth) on the inside or outside of the cannon bone</li> <li>• Most commonly found inside the front cannon</li> <li>• Usually due to injury or faulty conformation</li> </ul>   |
| Thoroughpin (U, B)             | <ul style="list-style-type: none"> <li>• A puffy swelling of the hollow above the hock joint</li> <li>• Moveable by hand pressure from one side of the hock to the other</li> <li>• Usually due to injury or faulty conformation</li> <li>• Rarely affects the horse after the initial lameness has disappeared</li> </ul> |
| Thrush (B)<br>(Not on diagram) | <ul style="list-style-type: none"> <li>• A disease of the frog of the hoof characterized by a black, foul-smelling discharge</li> <li>• Usually results from unsanitary conditions</li> </ul>  |
| Windpuffs (B)                  | <ul style="list-style-type: none"> <li>• Puffy, fluid-filled swellings at the top of the fetlock joint</li> <li>• Most common in the hindlegs</li> <li>• Usually a result of heavy work</li> </ul>   |

## The Functional Aspects of Conformation

The form of the ideal horse will give the horse superior function. Let's look at each of the body parts and see how their form relates to their function.

### Head

The size of the head should be in proportion to the size of the horse.

If the head is too large:

- the center of gravity is shifted forward
- the horse tends to be a heavy mover
- vision may be restricted.

If the head is too small:

- the center of gravity is shifted backward
- the horse tends to be light in front
- there is inadequate room for the teeth and other internal structures in the head.

The head should be of a triangular shape to increase the cranial or brain capacity. If the bridge of the nose is rounded, as in the roman nose, frontal vision is restricted.

The eyes should be large and wide set to increase the horse's field of vision. When the eyes are small and set back into the head, as in pig eye, vision is restricted, especially to the rear and the horse often has a nervous or unruly disposition.

The nostrils should be large and flaring to increase the airflow in and out of the lungs.

The throatlatch should be wide and clean to provide room for breathing, swallowing and circulation, and to increase the ability of the horse to flex at the poll. An excessively large jaw, such as the platter jaw will reduce the ability of the horse to flex at the poll and may restrict breathing, blood circulation and swallowing.

## Neck

Because the horse uses the head and neck as a balancing arm, adequate length is required to maintain equilibrium and balance. With increased length of muscle, the range of movement of the shoulder and the length of the stride will increase.

If the neck is too long:

- the weight on the forehead increases.

If the neck is too short:

- the length of stride and suppleness decrease, as is often associated with a thick, heavy neck.

A neck with a clean, arched shape is more flexible, especially at the poll. The shoulder rotation and the length of stride will also be increased. The ewe neck restricts flexion at the poll, restricts vision, and the horse tends to throw its head upward. A cresty necked horse carries more weight on the forelegs.

The depth and set of the neck also affect the horse's function. A trim neck set high into the shoulder decreases the weight on the forehead. A thick or low set neck increases the weight on the forehead.

## Withers

Withers of a longer length have a greater area for muscle attachment. These muscles are required for:

- raising the head and neck
- moving the head and neck from side to side
- rotation of the shoulder
- extension of the spine.

Long withers are frequently associated with well-sloped shoulders.

Low, wide withers, referred to as mutton withers, are prone to injury if the saddle slides forward. It is hard to keep the saddle in place on mutton withers since the saddle is more likely to slip to one side.

## Shoulder

The horse's front leg is attached to the body only by muscle and tendons. The front legs are a sling which holds the body.

A long shoulder or scapula increases the area of attachment and length of muscles, providing greater shoulder rotation, forearm extension and length of stride.

The slope of the shoulder is measured along the scapular spine to the top of the withers, not from point of shoulder. A well-sloped shoulder provides shock absorption and allows the foreleg to be raised higher to allow the stride to be fully completed before the foot strikes the ground. A more sloping shoulder provides freedom of movement, elasticity of gait, lightens the forehand and decreases concussion. A steep shoulder decreases the length of stride, increases concussion on the forelegs and gives the horse a rougher gait.

The muscling of the shoulder should be long and well-developed for strength and absorption of concussion. Too much muscle increases the weight on the forehand and decreases the freedom of movement.

## Arm

The size affects the function. The arm should be relatively short but well muscled. A well-sloped shoulder is usually accompanied by a fairly upright arm which allows for greater forward extension of the foreleg. An arm which is too long restricts the movement, and muscles tire quickly. An arm which is too short decreases the length of the stride.

## Chest

The chest should be wide, deep and well-muscled. This will increase the ability of the horse to move laterally. A chest that is too wide produces a laboring, waddling stride. When the chest is too narrow the horse may interfere when traveling.

## Barrel

The horse needs depth of heartgirth and spring of fore rib to provide adequate room for the maximum function of the heart and lungs. A lack of depth and spring of rib decreases the capacity of the heart and lung. A deep flank and spring of rear rib increases the digestive capacity and the foal carrying capacity in mares.

## Back and Loin

The only skeletal support in the loin is provided by the spinal column. Therefore, adequate muscling is necessary for additional strength. A swayback horse has restricted ability to pull its legs forward beneath the hindquarters. A roach back horse has restricted flexibility.

## Hip and Croup

A long hip and croup have longer muscles which increase the length of stride.

The shape of the hip and croup vary according to body type. A more level hip and croup provide a long, flowing stride, while a more sloping hip and croup allow the hind legs to drive further underneath the body for power and speed.

A rump which is too steep, or a goose rump, decreases the length of stride and speed, and increases the concussion on the hindlegs. A rafter hipped horse may interfere during traveling because of the lack of muscular support.

## Hindquarters

A well-muscled hindquarter is necessary for strength and power. The volume and length of muscling depend upon body type.

## Feet and Legs

### a. Forearm

A longer forearm allows for greater extension of the foreleg. Long muscling provides greater contraction and lift of leg. Volume of muscling provides power and support for the lower leg.

### b. Knee

The size of the knee affects the function of the horse. A large, clean, flat knee increases the area of attachment for tendons, ligaments and muscles, and increases the area of support to reduce stress on the knee.

A buck kneed horse is susceptible to bowed tendons. A calf kneed horse is susceptible to chip fractures of the knee and bowed tendons. Calf knees are more serious than buck knees because the knee does not bend backwards.

A horse which is tied-in at the knee is predisposed to bowed tendons.

Knock knees cause excess stress on the outer knee and strain on the inside ligaments of the forelegs. Bowlegs cause excess stress on the inner knee and strain on the outside ligaments to the forelegs. Bench knees cause more stress on the inside splint bones and the horse is predisposed to splints or knee chips.

### c. Gaskin

A longer gaskin allows greater extension of the hindleg. Long muscling provides greater contraction and lift of the leg. A greater volume of muscling provides power and support for the lower leg.

#### d. Hock

A large, clean, flat hock provides greater surface area for the attachment of tendons, ligaments and muscles and increases the area of support to reduce stress on the hock.

Sickled hocks place excess strain on the plantar ligament. A sickle hocked horse is predisposed to curbs.

A post legged horse has excess stress placed on the front of the hock joint and on the stifle joint. A post legged horse is predisposed to bog spavins, thoroughpins, and bone spavins or upward fixation of the patella.

A cow hocked horse has excess stress placed on the hock joint and strain on the ligaments. A cow hocked horse is predisposed to bone spavins, curbs or thoroughpins.

Bowed legs cause excess stress on the hock joint and strain on the ligaments. A bow legged horse is predisposed to bog spavins, curbs or thoroughpins.

#### e. Cannon

The length of the cannon bone affects the function of the horse. A short cannon bone is stronger than a longer cannon bone. There is less mass to extend causing the horse to have a longer stride.

#### f. Fetlock Joint

A large fetlock joint provides greater surface area for the attachment of tendons and ligaments and reduces stress to the joint.

#### g. Pastern

The length and angulation of the pasterns are important. Moderately long, sloping pasterns help to absorb concussion.

Steep pasterns increase the effect of concussion on the fetlock joint, pastern joint and navicular bone. A horse with steep pasterns is predisposed to osselets, ringbone and navicular disease.

A horse with weak pasterns is susceptible to injury of the tendons, ligaments and the fetlock joint. A broken hoof/pastern axis or angle places additional strain on the tendons and ligaments.

#### h. Hoof

Adequate hoof size is necessary so the stress and concussion are distributed over a larger area.

i. Deviations Affecting the Entire Foreleg/Hindleg

If the horse is camped under in front, there is excess weight on the forelegs. If the horse is camped under in the rear, the horse may also be sickle hocked or post legged.

If the horse is camped out in the front, there is excess stress on the front of the knee and strain the ligaments and tendons. If the horse is camped out in the rear, the horse may also have steep rear pasterns and/or be sickle hocked.

If the base of the foot is narrow, this may be accompanied by toe-in or toe-out conformation. There is more weight and stress placed on the outside of the legs and the horse is predisposed to windpuffs, ringbone and sidebone.

If the base of the foot is wide, this may be accompanied by toe-in or, more commonly, toe-out conformation. This places more weight and stress on the inside of the legs and the horse is predisposed to windpuffs, ringbone and sidebone.

If the horse toes in, or is pigeon toed, more weight and concussion is placed on the outside of the pastern and hoof. If the horse toes out, or is splay-footed, more weight and concussion is placed on the inside of the pastern and hoof.

## Sample Reasons

Good afternoon, I placed this class of Aged Quarter Horse Mares 3 2 4 1.

I placed 3 at the top of the class because she was the most balanced, most stylish mare in the class.

In the top pair, I placed 3, the sorrel, over 2. 3 was a more balanced mare that exhibited a longer, trimmer neck that set in higher to the shoulder. She had a shorter, straighter back with a longer underline that resulted in a straighter, smoother, more efficient ground covering stride. She showed more breed character about the head. She was more refined from eye to muzzle, has a shorter neater ear and had a more prominent jaw.

Moving to the middle pair, I placed 2, the bay, over 4. 2 was a heavier muscled mare. She was more V-ed up in her chest and was heavier muscled both inside and outside in her forearm and gaskin. She was a neater balanced mare, being leveler over her croup and was shorter and stronger in her back. She was also longer in her underline as compared to her topline. I grant that 4 was a taller, more upstanding mare that traveled straighter and truer.

In reference to the bottom pair, I placed 4, the black, over 1. 4 was a larger, heavier muscled mare – heavier muscled through her forearm and shoulder, stronger through her loin. 4 was wider and thicker through her stifle, quarter and gaskin. She was the straightest, most correctly moving mare in the class at the walk and trot. I admit that 4 was thick in the throatlatch and grant that 1 showed more bloom and vigour to her haircoat.

I criticize 1 and placed her at the bottom of the class because she was the smallest, lightest muscled mare. She was lighter in her forearm and gaskin and light through the hip.

For these reasons I placed this class of Aged Quarter Horse Mares 3 2 4 1.