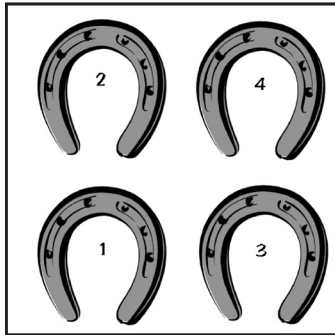


Movement

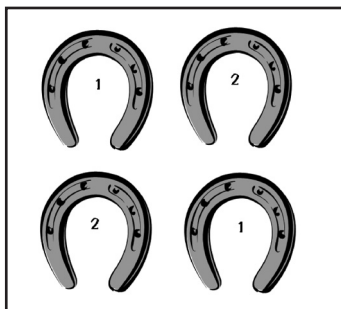
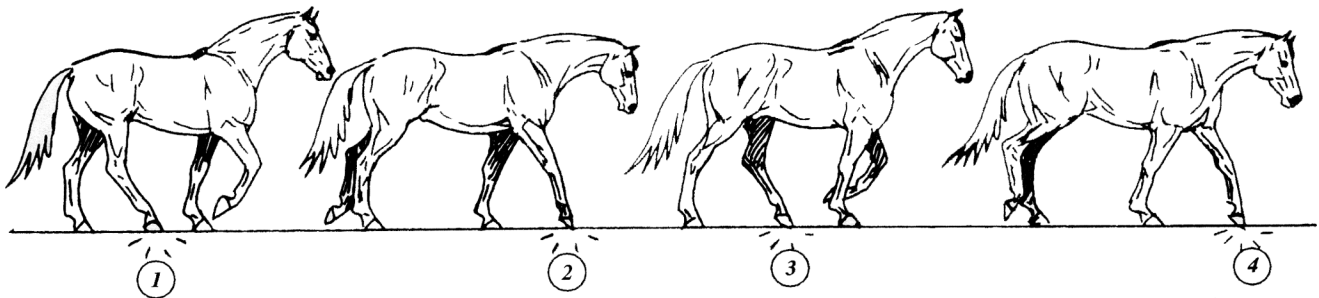
Gaits

The gait of a horse refers to the different sequences in which the horse's feet touch the ground. The common gaits for horses are the walk, trot, canter and gallop. Some breeds pace and rack. Some of the terms used to describe a horse's gait are determined by the style of riding that is being done. For example, the western horse jogs and lope while the english trots and canters. There are some breeds of horses that naturally do other gaits than walk, trot, lope or gallop. For example: Some Standardbreds pace – a two beat gait where the horse moves the legs on the same side together.



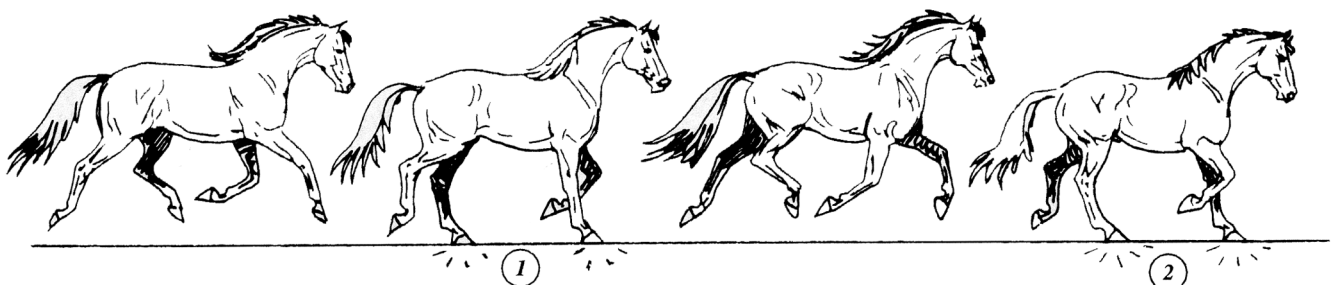
Walk

The walk has a four beat rhythm. Each foot is picked up and set down in sequence. The horse's back is level at the walk.

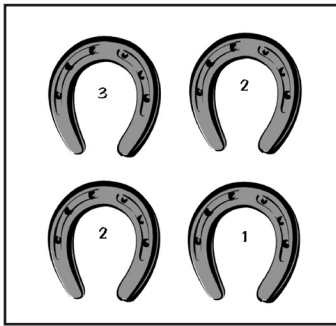


Trot/Jog

The trot/jog has a two beat rhythm. Diagonal (opposite) front and hind feet move forward at the same time. This is called a diagonal movement. The horse's back has a regular up and down movement at a trot/jog.

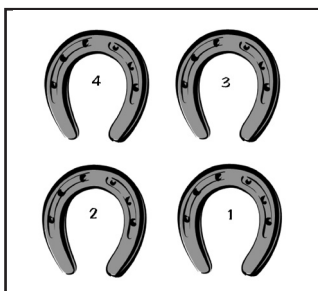
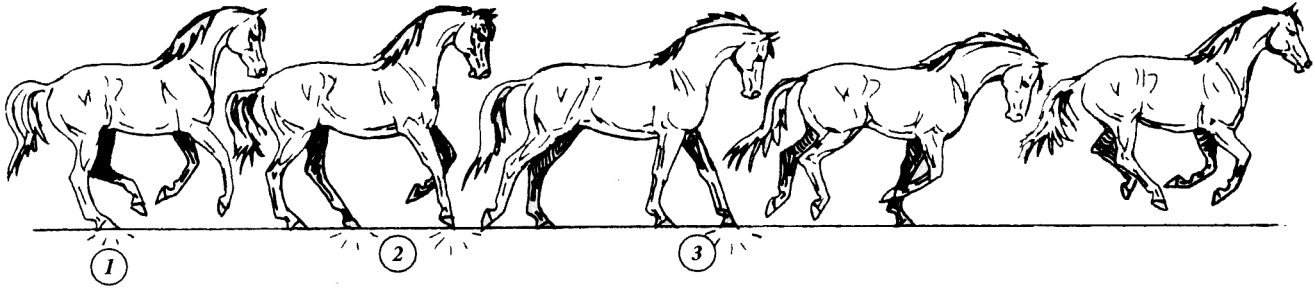


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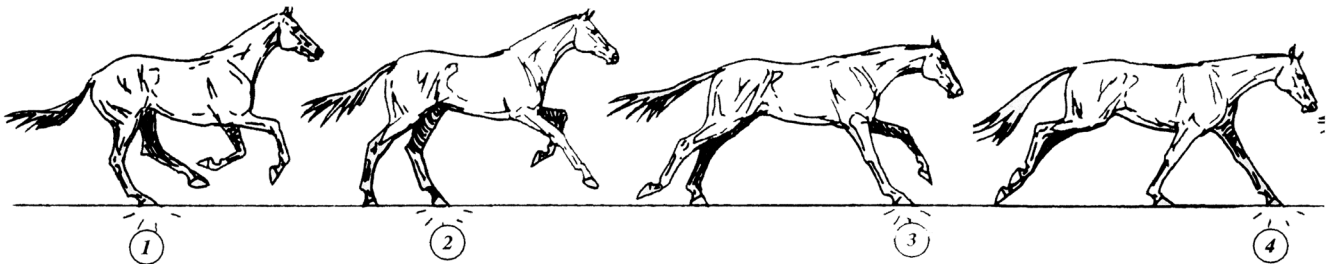
Canter/Lope

The canter/lope is a three beat gait with a moment of suspension (hesitation). The head and neck are carried above the natural position of the neck to lift the forequarters and help front leg action.



Gallop

The gallop is the horse's fastest gait and is a four beat gait, with a moment of suspension. The body of a horse is more stretched out when it gallops than with any other gait. For example a horse running a race is galloping.



Back up Two beat rhythm on diagonal pairs

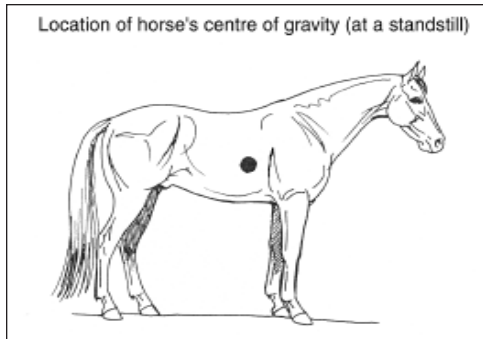
Stride Stride is the term used to measure the distance covered between two successive steps of the same hoof in any gait. When a horse lengthens its stride it reaches further with each leg.

Leads When a horse lopes/canters it reaches further in front with one front leg which is called the lead. To be properly balanced on turns and circles a horse naturally and/or with training should pick up the inside lead. Hind legs should take the same leading actions as the front. When the front and hind legs are not on the same lead, it is called crossfiring.

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Center of Gravity

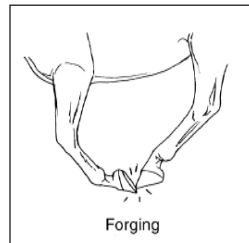
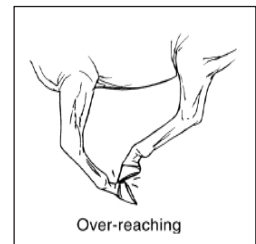
Every living thing has a center of gravity and as they move, the center of gravity moves. The horse's center of gravity is located behind the wither at the lowest part of the back. A horse (at a standstill)



carries approximately 60% of his weight on the forelegs and approximately 40% on the hind legs. As a horse speeds up, its center of gravity moves forward and as it slows down or collects its center of gravity shifts back. The horse's neck and head also affect the center of gravity. As the head and neck are raised, the center of gravity moves back and when the horse moves with its head and neck lowered, the center of gravity moves forward.

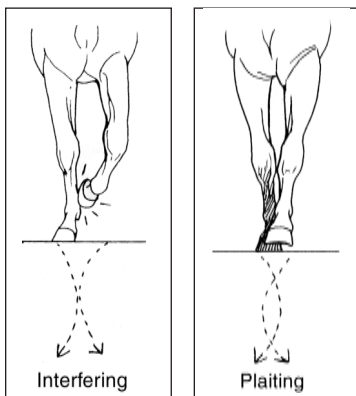
Defects in Movement

Over-reaching - is when the toe of the hind leg "grabs" the heels of the forelegs. This can cause serious injury, usually to the heels or the tendons. This can happen in high energy sports when the hind leg extends too much or the front leg doesn't extend quickly enough.



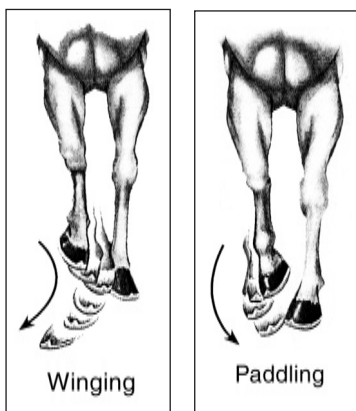
Forging - the hind foot striking the sole of the front foot as a horse trots is called forging. Horses wearing shoes will make a distinctive sound if they have this fault when they travel. Forging happens when a horse advances its hind foot too quickly or lifts its front leg too slowly. Young inexperienced horses will sometimes do this, or it can be a sign of laziness (especially in the front end), lack of condition or fatigue.

Scalping - the toe of the forefoot strikes the coronet band of the hind foot.



Interfering - associated with horse toeing out. Horse usually base narrow and/or narrow chested. When one foreleg/hindleg strikes the opposite foreleg/hindleg while in motion. This is associated with horses that toe out and that are usually base narrow and or narrow chested.

Plaiting - is when a horse places its front feet directly or almost directly in front of each other (like walking a tight rope). A horse that plaits often has conformation faults (base narrow) and may be subject to stumbling.



Winging - is when the foot wings in to the inside and then lands to the outside of the straight track. A horse may strike itself when it wings and it places extra stress on the inside of the horse's leg as it lands outside rather than straight.

Paddling - the foot paddling out to the outside and then landing to the inside of the straight track is called paddling. It rarely causes interference but it does place extra stress on the outside of the leg. Horses that toe in (conformation fault) often paddle when they travel.

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Brushing - happens when one front or hind foot hits the opposite foot at the fetlock. Ankle boots are a must to protect the fetlock of a horse that brushes.

Lameness

Lameness is a sign that there is something wrong with the structure or function of the horse. For every lameness there is a cause. Strain is the most common cause of lameness. Like kids and athletes, horses can hurt themselves at play and work. When a horse is lame, it will favour one or more legs, not allowing it to touch the ground or limping so that it doesn't place its full weight on it.

Sometimes it is easier to hear a lameness than to see one (rhythm of feet hitting the ground). Lameness is most readily seen at a trot. The horse's head will bob up and down most often, indicating a sore foot or leg in the front. Lameness can be caused by numerous factors. Look for swelling and heat in the lame leg or foot. If your horse is limping, it is important that you find out the cause of the limp so that you can remedy the situation before it gets worse.

Diagnosing Lameness

Methods to Help Diagnose Lameness:

🐾 **Observe the horse at rest.** The stance position can indicate where lameness is. Watch for the horse doing any of the following:

1. *"Pointing"* of front foot indicates pain in the limb, usually heel area.
2. *"Pushing back"* with weight on heels indicates pain in the toe area.
3. Hind limbs camped under body if both front legs are affected.
4. Shifts weight from one leg to another if both front and hind feet are affected.

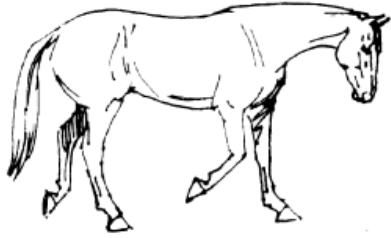
🐾 **Observe the horse in motion.** Note the gait and how the horse carries its head. Observe the horse walking and trotting directly away from and towards you, as well as from the side.

1. Lame in **one** FRONT leg:
 - a. Note the horse's gait and how the horse carries its head.
 - b. Head raises sharply as the animal steps on the lame leg.
 - c. Usually a horse will step shorter with the lame leg.
2. Lame in **one** HIND leg:
 - a. Hip raises sharply as the unsound or lame leg strikes the ground.
 - b. Head bobs down sharply as unsound or lame leg strikes the ground.
 - c. Tail carried to one side.

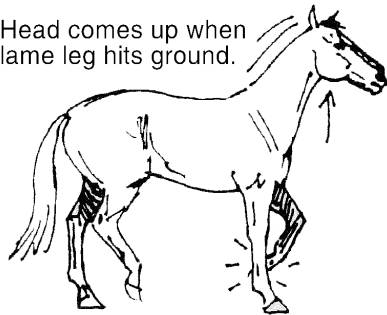


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Lame leg takes a short step.



Head comes up when lame leg hits ground.



Front leg lame.

Hip carried higher on lame side.



Hind leg lame.

3. Lame in **both** FRONT legs:
 - a. stiff, stilted action (“pottery” gait).
 - b. Short stride
 - c. Appears stiff in the shoulders.
 - d. Head is carried high without nodding.
 - e. Hind feet carried farther under the body.
4. Lame in **both** HIND legs:
 - a. Short stride.
 - b. Awkward gait.
 - c. Lowered head.
 - d. Front feet raised higher than rear feet.
 - e. Difficult or impossible to back.

🐾 **Note the progression of lameness.** You may want to lunge the horse in both directions to observe this.

1. “Warms out” (progressively sounder) - may indicate arthritis, bursitis, and so on.
2. Progressively becomes lamer with use - may indicate tendons, ligaments, and so on.

🐾 **Examine the leg closely** using palpations and manipulating joints.

1. Start with the foot. Clean it out and check. Progress upward.
2. Compare suspected limb and foot with sound one(s).
3. Look and palpate for:
 - a. Cracks in the hoof or coronet, or in the cleft of the frog.
 - b. Wounds.
 - c. Swelling.
 - d. Pain.
 - e. Heat.
 - f. Irregular pulse.

Lameness is usually seen in the forelegs. This is because they support 60 - 65 per cent of the weight of the horse. The injury can occur from the shoulder down. A lameness in the hind legs is less common. If a horse does develop a hind leg lameness, the injury is usually in the hock or stifle area.