Stumbling. It's Probably Not a Horseshoeing Problem.

Farriers often hear, "My horse stumble, so my trainer said to tell you to rocker the toes."

Many trainers and owners believe that a rolled or rocker toe is all that is needed to 'correct' stumbling. The 'just speed up the breakover and the horse will stop stumbling' response may cause you to overlook potential problems that the horse may be experiencing.

You should not accept the requested treatment until you identify the cause. As a farrier, once you say, 'sure I'll rocker the toes' the trainer or owner attaches the responsibility to you for correcting the problem. If the horse continues to stumble the client will assume that the stumbling is a result of your inability to properly build and apply a rocker toe shoe. You will lose a bit of your reputation and probably a client.

If a horse is well shod, foot dressed, proper angles and length with the appropriate shoe and it still stumble, rocker the toe will due little to nothing to prevent stumbling.

Before you accept responsibility for 'fixing' stumbling with a rocker toe you need to evaluate the cause. Here is a list of causes that should be evaluated prior to any shoeing modification for stumbling.

1. **Young.** Young horses often stumble in the ongoing attempt to discover their own feet and the limits of their movement. Alterations in the shoeing may not be needed. Have your client watch a soccer game played by 8-year old children. The client would never assume that any child that stumbles needs 'corrective' athletic shoes. Stumbling is simply a part of being young.

   Young horses, just under saddle, have to adjust to live weight on their back as well as their own movement. They are prone to stumbling. Unsteady riders with unsure horses can create stumbling that does not require special shoeing. As the horse ages and becomes accustomed to live weight his stumbling will decrease.

2. **Fatigue or out of shape and/or fat.** Fatigue will cause a horse to stumble. In movement, the muscles of the deep digital flexor tendon and the superficial digital flexor tendon stretch and allow the fetlock to sink in a controlled manner. The muscles then contract and pull the fetlock and hoof capsule up onto the toe, in preparation for the anterior (forward) phase of the stride. When the muscles become fatigued they do not respond quickly and the tendons do not pull the fetlock and hoof on to the toe fast enough. The horse's body weight passes the limb before his foot is ready. The horse throws his feet forward to keep his nose off the ground. Quickly bringing the feet forward means that the feet are kept close to the ground and stumbling may occur.

3. **Mechanical lameness.** Horses that have problems in their knee, fetlock and/or coffin joints will resist movement of the effected joint. In an effort to keep the joint as quiet as possible the horse will keep his feet close to the ground. This 'daisy cutting' increases the occurrence of stumbling. Watch someone walk with a knee brace. They will make an outward movement with their leg keeping their foot close to the ground. This is done to bring the leg forward without bending the knee. When a horse needs to move its limb forward without flexing a joint he will move the limb closer to the ground and usually outward.

4. **Upper fixation of the patella.** The stifle is a complex joint that involves the distal (bottom) aspect of the femur, the proximal (top) aspect of the tibia and the patella. The distal aspect of the femur has two ridges (condyles). The patella rests on top of the medial condyle and helps lock the stifle joint, assisting the horse in standing with very little muscular effort. In movement the patella effortlessly slides on and off this ridge. When the stifle is injured due to stress, conformation or accident the medial patella ligament catches on top of the medial condyle of the femur, momentarily locking the patella. The stifle joint cannot flex and because the stifle and hock joints are reciprocal joints, the hock doesn't flex either. This causes the horse to stumble. Without a careful examination by a veterinarian this problem is often overlooked.

5. **Beginning of lameness.** Horses that are experiencing the first stage of one of many front foot lameness may alter the way they travel. This can cause the horse to stumble. Heel soreness, can be the beginning of several problems of the navicular area or flexor tendon problems. A host of other injuries or soreness may cause the horse to land toe first, altering his normal heel first footfall. The toe striking the ground first causes the horse to stumble.
6. **Rider Error.** A poor or inexperienced rider can be the origin of stumbling for the horse. It takes years of practice and hard work to properly collect a horse. Since horses naturally carry sixty percent of their weight on the front limbs, riders that allow the horse to lay on the bit will create a scenario where the horse gets heavy on the forehand and stumbles as a result of this extra weight. Breakover is delayed as the center of gravity moves forward with speed. Riders who allow the horse to get behind the bit, where the horse curls his head downward, his nose to his chest, create vision difficulty for the horse as well as allowing the horse to focus on getting away from the bit and not on watching where he is going.

Riders on trail rides who allow their horse to walk close to the horse in front of them will have trouble with their horse stumbling. The horse in the back will have its vision and will tend to stumble.

Riders who ride their horses through rough and unfamiliar terrain increase the possibility of stumbling.

7. **In frequent trimming and/or shoeing schedule.** Some horses need to be trimmed and shod more frequently than others for a variety of reasons. Once feet get long, gait abnormalities increase as well as difficulty in breaking over at the toe. If you find that the horse is stumbling toward the end of the shoeing cycle then put the horse on a more frequent shoeing schedule.

8. **Lazy horses.** Some horses stumble if they are lazy natured. Lazy horses sometimes stumble just because they just don't care where they put their feet. Trying to ease the breakover is the opposite of what is desirable. The lazy horse should be made aware that he has feet with 1) a heavier shoe than normal or, 2) by using a bigger shoe and making the toe of the shoe fit past the toe of the hoof or, 3) some type of anklet, such as wooden beads on a strip of leather, tied loosely around the fetlock.

9. **Terrain.** Any horse will stumble if the terrain is bad. Rough, rocky ground with horses that are not used to this type of traveling causes stumbling. Arena horses out on a rough trail have a tendency to stumble. Increasing breakover will not make a flat land horse into a sure-footed mountain horse.

10. **Inner ear infection.** A horse with an inner ear infection tends to hold its head in one direction and sometimes at a slight slant. Either balance is impaired and/or the horse is too occupied with ear problems to pay attention to where it is going.

11. **The occasional stumble.** Stumbling is just a product of movement. It happens to every horse periodically. The occasional stumble is probably not a problem that requires veterinarian or farrier intervention.

12. **Pain.** A horse that is experiencing pain, particularly on foot-fall, will alter the arc of flight and how to foot lands to avoid pain. Any type of palmar heel pain will cause the horse to land toe first and stumble. If the horse is experiencing bi-lateral heel pain there will be no head bobbing lameness but lots of stumbling.

13. **Conformation.** Perhaps the greatest cause of stumbling is poor conformation. The poorer the conformation the more experienced the rider must be in the skills needed to collect the horse and keep the horse in a proper frame.

Many types of conformation make the horse predisposed to stumbling. Any conformation that makes the horse heavy on the forehand will create the potential stumble. A rocker toe shoe will not ‘correct’ conformation defects.

**A long toe, low heel** foot physiology will cause the horse's body weight to pass over the leg before the leg is prepared to move forward, delaying the breakover. With the body weight in front of the leg the horse quickly throws his foot forward, keeping it low to the ground and predisposes the horse to stumbling.

Standing under makes the horse heavy on the forehand. Standing under causes the horse's body weight to pass over the leg too early in the stride requiring the horse throw his leg out in front of him to support his weight. This 'throwing' of his leg keeps the foot close to the ground and predisposes the horse to stumbling.

A horse with a long neck and large head as well as a horse with a croup that is higher than the wither will create the same low anterior stride and stumbling.

**Bull Neck.** This is a horse with a thick, short, heavy neck. This neck will fit low on the shoulder. Because the head and neck act as the counter balance to the powerful back end a short thick necked horse will have more problems with balance, particularly with an overweight and/or unsteady rider.

**Ewe or Swan Neck.** Horses with ewe or swan neck are what we call star-gazers. These are horses that travel with their nose straight out and their heads high in the air. Because of their neck conformation they cannot put their face forward by flexing their necks and arcing. The high
head/neck elevation will make it very difficult to collect this horse and it will travel with, what appears to be, little communication of front and back limbs. His vision will be impaired causing stumbling.

**Calf-kneed.** A calf-kneed horse will require more muscle exertion to keep a fluid movement. The muscles of the forearm will fatigue quicker, causing a 'more severe' calf-kneed condition and subjecting the horse to stumbling.

**Over in the knees.** In this condition the knees buckle forward because they are always in a flexed condition. Without the ability to 'lock' its knees these horses will stumble.

**Short upright pastern.** A horse with a short upright pastern will have excessive concussion that will have the tendency to bruise the heels. He will already have a short stride and with sore heels he will land toe first and periodically stumble.

So, the next time your client's trainer says that the horse stumbled because he didn't have rocker toes...check everything out before deciding that a quick fix by the farrier is the answer.