



Clicking Sounds/Hypothyroidism

Q: I was given a beautiful 9-year-old Arabian gelding that had originally been trained for country English pleasure but was very underweight. I am putting the weight back on him, but I hear a clicking sound every time he moves his hind legs at the walk and his fetlocks almost touch the ground. My farrier said that he has weak hind pasterns. Is there a way to strengthen his legs and if not, will he have health problems in the future?

A: The concerns that you have with your gelding are valid and should be evaluated as a team by you, your veterinarian and your farrier. While the audible clicking sounds that are frequently heard from a horse's hind legs have not been associated with clinical lameness, in this instance, they may be caused by structural abnormalities affecting the joints. The anatomic structures that support the fetlock and prevent it from sinking to the ground during weight bearing are the flexor tendons and the suspensory ligament. A lameness examination along with ultrasonic imaging of these structures would provide a great deal of information as to the integrity of your horse's fetlock support apparatus, his overall soundness and strength of his hind quarter musculature. Equally, the angle of his hind hooves, the types of shoes—with or without heel extensions—and the length of his hind toes can have an enormous impact on the load capacity and function of his fetlock and the way he carries his pasterns. Once your veterinarian evaluates your horse, he or she should work closely with your farrier to make adjustments to the hoof balance, angles and shoes that are used on his hind feet. Sometimes finding the right shoe and toe length requires a period of trial and error, so be patient in letting your professionals find the right combination for your gelding.

You are correct in being concerned about your gelding's future soundness if he continues to hyperextend his fetlocks. This abnormal motion puts increased strain on his flexor tendons, suspensory ligament, sesamoid bones and joint capsule and could cause joint damage. Your veterinarian may want to take some radiographs of your horse to evaluate current joint health and help you select a work load that he can tolerate.

Q: I have a Half-Arabian mare that has just foundered without any apparent reason. Right before she foundered, she got this puffy look which is actually what happened to her dam at about the same age, 18. Could the founder be related to hormones, or could it be a thyroid problem? Is it inherited?

A: When inflammation of the sensitive laminae inside the hoof (laminitis) results in permanent damage to the horse's foot tissues it is called founder. This painful disorder can occur in horses of any age but geriatric individuals have an increased risk. One reason for the increased incidence in older horses is a change in metabolism associated with not only the thyroid gland in the neck but also the pituitary gland at the base of the brain. The fact that both your mares developed problems with advancing age and had similar characteristic changes in their appearance suggests involvement of the endocrine (hormonal) system.

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The typical clinical signs of a lack of adequate thyroid hormone include a thick, cresty neck, obesity, dull hair coat, and often the presence of laminitis and infertility, in the mare. The thyroid hormone in the horse can be measured as T4 or T3 in the blood, but many factors can affect the levels of these hormones, and there is even a normal fluctuation in their levels during the day. To establish the existence of a thyroid dysfunction, your veterinarian will draw several blood samples for thyroid analysis and perform a comprehensive physical exam. If your mare is diagnosed as hypothyroid she can be supplemented with thyroid hormone as a feed supplement at low cost. Your mare will need to be re-evaluated and have her levels checked after supplementation to establish the optimum level for her. As time progresses, her requirement for thyroid supplement will change and you should work closely with your veterinarian to monitor her health and thyroid status.

Thyroid supplementation in horses, particularly broodmares, is not uncommon. In fact it is estimated that it costs the horse industry more than \$1 million a year, and the veterinary community is concerned that far more horses receive thyroid supplementation than are actually hypothyroid. To avoid unnecessary expenses, only horses that have the characteristic physical changes, a persistently low T4 serum level and a careful veterinarian examination to rule out other disorders, should receive supplementation.

Although hypothyroidism has not been proven heritable, endocrine problems run along family lines, so it can be describe as familial. Related individuals, like the daughter of your mare, may have increased risk factors.

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