Founder and Spring Pasture Turn-Out Guidelines

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Founder (known as laminitis) is an inflammation or swelling of the laminae or tissues connecting the hoof wall to the coffin bone. Swelling causes pressure on the blood vessels in the laminae; if it persists, the laminae will die. The laminae in the front of the hoof, carrying most of the weight, stretches and tears allowing the front of the coffin bone to pull away from the hoof wall (called rotation). In severe cases, the laminae die allowing the coffin bone to drop through hoof bottom (known as vertical displacement or sinking). Most vets say a horse has "foundered" when rotation or vertical displacement occurs. Accurate diagnosis is done by a vets exam; x-rays are helpful in determining severity.

The most common laminitis relates to nutrition and diet. Rapid intake of starches or fructans (a sugar) stored in pasture can be a cause. Fructans are the primary reserve carbohydrate stored in cool season grasses like fescue and ryegrass. Grazing management is important for horses predisposed to laminitis (often ponies and overweight horses). This includes limiting grazing during the times of day when fructans are at the highest level in grasses. Generally, horses predisposed to laminitis should graze in the evening and over night and be inside or in dry lots during the daylight. Grazing should be limited during environmental stresses on plants such as drought or cool temperatures. Rotational grazing is recommended where regrowth is limited to 4-6". It is important not to over graze pastures as the lowest stems often contain the highest amount of sugar. Avoid grazing on pastures with lots of seed heads which contain high amounts of sugar. Gradually introducing horses to lush spring pasture reduces the chance of laminitis. Turn horses into the pasture slowly over several weeks. Begin with short (15 min.) grazing periods; work up to a full day over several weeks.

Gradual spring turn-outs are also beneficial for the pasture. Spring turn-out should be determined by: stocking rate (how many horses; total pasture acreage), pasture species and condition, and ability and availability of mowing/haying equipment for paddocks that may get too tall/mature for effective pasturing. On average, 1-2 acres of well-managed pasture can provide forage needs for one horse from spring to fall. "Well managed" means subdivided into at least 3 paddocks, fertilizing according to soil tests, and controlling weeds. With this much (or more) acreage per horse, consider grazing early, getting a jump on the spring flush of pasture growth. With less than 1-2 pasture acres per horse, the pasture cannot be expected to meet all forage needs during the grazing season. Plan to provide hay and designate a sacrifice area/paddock to feed horses as needed to allow adequate rest (on average 30 days) for the remaining paddocks. If overstocked, it may make sense to wait for more spring growth before grazing, since staying ahead of the spring flush will be less of a concern. Grass pastures with good stands of Kentucky bluegrass or smooth bromegrass can handle early spring grazing (when bluegrass is 3-4" tall; bromegrass is about 6" tall). These grasses are sod-forming and tolerant of horse hoof damage. Pastures dominated by bunchy-growing grasses like orchardgrass and timothy should be taller (about 10"). These grasses are more easily damaged by hoof action and grazing. If conditions are really wet, it is best to wait, regardless of plant height.

If a horse is diagnosed with laminitis, prompt treatment is important to control pain and inflammation. Encouraging circulation to the laminae is important as well as stabilization of the foot and coffin bone. Recovery depends largely on the amount of damage done to the laminae and general health of the horse. Severe cases may require treatment varying from corrective trimming and shoeing to surgery. Management of a foundered horse is best accomplished through close cooperation of horse owner, veterinarian and farrier.