

Can moldy hay cause increased GGT levels?

I have a horse who has had an abnormally high gamma-glutamyl transferase (GGT) count for the last two months. I tried him on liver clean with little results. He started out at 153 and he is now 129 after the last check. I was wondering if it is possible that it's from slightly moldy hay. I cannot see the mold but it smells a little musty. Is that something that could cause it, or is it possibly the fact I feed a mixture of orchard grass and alfalfa that is too rich?

To best answer your question, it would be ideal to know more about your horse, such as his age, if he is in race training, and what area of the country the horse resides. GGT is an abbreviation for gamma-glutamyl transferase, an enzyme contained within liver cells. When liver cells are damaged or there is an obstruction to biliary flow, GGT can be released from the liver cells into the blood circulation. GGT is stable and a reliable marker of liver disease in horses.

An increased GGT level indicates liver damage, although it is not a definitive cause.

There are multiple causes of liver disease in horses. More common causes include biliary obstruction secondary to intestinal displacement or biliary stones, chronic active hepatitis, increased fat deposition within the liver, pyrrolizidine alkaloid (PA) toxicity, and Theiler's disease, which can be associated with plasma/serum products. Interestingly, increased GGT levels have been reported in young Thoroughbred racehorses with no associated liver dys-

function. The cause for the increased GGT in these horses is not definitely known, although most respond to decreased training and/or rest.

Feeding overly dusty or moldy hay to horses is not recommended for a couple of reasons. More commonly, dust and mold in hay can cause inflammation of the lungs and impair breathing in horses. Mycotoxins, which can cause liver failure, can be found in moldy hay, although this is not a common cause of liver disease in horses.

The type of hay you are feeding, a mix of alfalfa and orchard grass, is unlikely to be causing the increased GGT level. Alfalfa hay is more nutrient rich than other hays, although not more than quality grass pasture.

The decreasing GGT level in your horse suggests the insult to the liver is no longer present. GGT levels can remain increased after the injury/insult to the liver is no longer present and take several weeks to return to normal levels. If the GGT remains increased, your

veterinarian can perform other liver specific blood tests. An ultrasound examination and/or liver biopsy may be indicated to further evaluate your horse's liver function.



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