

## **PSSM**

**Equine Polysaccharide Storage Myopathy (abbreviated as EPSM outside the stock horse community)** is an inherited autosomal **dominant** disease resulting in the excess storage of glycogen in muscle fiber. It is often the cause of the common form of tying-up in horses. Affected individuals often lose muscle and weight since they cannot properly process sugars and carbs in food. The hind end is often most affected. PSSM / EPSM horses will be stiff and have symptoms similar to shivers and stringhalts. *Horses with a single dominant gene WILL EXPRESS the disorder (at some point) AND can pass it to their offspring 50% of the time. Horses with two dominant genes will always produce afflicted offspring. NOTE: Horses on forage based, low carb diets (little to no grain) may NOT exhibit symptoms since the condition is related to sugar storage. For that reason AND the bloodline source(s) is still unknown, this is a "best to test" genetic disease.*

### **Lethal:**

–Potentially yes. If a PSSM horse loses enough weight and muscle tone they are more prone to illness and early death.

### **Inheritance:**

–DOMINANT. Homozygous horses are often more severely affected than heterozygous horses.

### **Affected breeds:**

–20 different breeds including: Shire, Percheron, Belgian, Suffolk Punch, Irish Draught, Halflinger, Fjord, Quarter Horse, Standardbred, Arabian, Warmbloods.- even mules/hinnies of these crosses can inherit PSSM.

### **Statistics:**

–Estimated 50% of draft horses have PSSM, 6-10% of Quarter Horses

### **Available Tests:**

– Yes. Detects Type 1 PSSM which causes more than 90% of PSSM cases.

### **Treatment:**

–A low carb low sugar and high fat (20-25%) diet has been found to be beneficial in many cases and may take 4-6 months to take effect. Horses are given access to hay and grass. Grain is often removed all together and replaced by alfalfa pellets with corn oil added. PSSM horses must have a minimum of 20% fat to function. Dietary changes alone may not help horses who are already in severe phases of the disease. Early detection and treatment gives better results. Consult a vet.

### **Prevention:**

–The only way to prevent foals born with PSSM is to not breed PSSM individuals.

### **Links:**

<http://www.aqha.com/en/News/News-Articles/02032012-Genetic-Testing.aspx>

[http://en.wikipedia.org/wiki/Equine\\_polysaccharide\\_storage\\_myopathy](http://en.wikipedia.org/wiki/Equine_polysaccharide_storage_myopathy)

<http://www.cvm.umn.edu/umec/lab/PSSM/home.html>

<http://www.thehorse.com/ViewArticle.aspx?ID=16092&src=topic>

<http://www.horsetesting.com/PSSM.htm>

summary and format from:

<http://www.horsegroomingsupplies.com/horse-forums/breeders-guide-to-equine-genetic-disorders-367267.html>