MYH1 Myopathy:
Immune-Mediated Myositis
Nonexertional Rhabdomyolysis

What is MYH1 Myopathy?

- Two muscle diseases caused by a mutation in the *MYH1* gene:
  1) **immune mediated myositis (IMM)** - autoimmune disease that causes rapid onset of muscle wasting along topline and hindquarters
  2) **nonexertional rhabdomyolysis** (tying up not caused by exercise) - characterized by severe muscle damage without signs of muscle wasting
- Autosomal dominant mode of inheritance with variable penetrance, meaning not all horses with the mutation will develop the disease

What you can do to keep your horse healthy:

- Whether or not horses develop either disease depends upon their genetic makeup and the environment.
- Breeders can avoid producing affected offspring by utilizing the available genetic test to identify horses with the mutation.
- About 39% of MYHM horses have history of exposure to triggering factor such as infection or exposure to certain pathogens

	Signs	Cause	Treatment
IMM	Muscle wasting along topline and hindquarters	Inherited mutation for increased susceptibility, triggering factors	Corticosteroids, antibiotics, dietary changes
Nonexertional rhabdomyolysis	Severe muscle pain, stiffness, reluctance to move, brown urine	Inherited mutation for increased susceptibility, triggering factors	Dantrolene & corticosteroids

**If your horse needs medical care, contact the Large Animal Clinic at (530) 752-1393.*
For genetic testing, contact the Veterinary Genetics Laboratory at vgl.ucdavis.edu.

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