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## HealthWatch: Pastured Horses More Fit

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### Pastured Horses More Fit

Horses are better able to maintain fitness when turned out on large pasture, according to Dr. Patty Graham-Thiers of Virginia Intermont College, in Bristol, Va. She presented her recent study results at the 2009 Equine Science Society Meeting, held May 29-31 in Keystone, Colo.

In the project, researchers divided mature horses into three groups:

Full-time turnout on a hilly 100-acre pasture;

Stalled during the day with light exercise five times per week; and

Stalled during the day, but not exercised.

Groups 2 and 3 spent nights in half-acre paddocks. After 14 weeks the horses in both the pastured and exercised groups had lower heart rates, faster recovery times, lower blood lactate levels, lower rectal temperatures, and lower peak CO<sub>2</sub> blood concentrations after an exercise test, indicating a greater level of fitness.

Additionally, only the pastured horses showed an increase in bone density over the course of the study.

### Plasma Transfusions

Plasma is widely administered to horses for a variety of reasons, such as a critical illness, failure of passive transfer in foals, or prophylaxis against *Rhodococcus equi*.

Researchers from Michigan State University examined transfusion reactions to plasma, both mild and severe, that can and occasionally do occur in horses.

They reviewed the medical records from 50 adult horses that received plasma transfusions in 2006 and 2007 and found 10% had a reaction. These reactions included hives, itchiness, swollen eyes, fever, and increased heart rates. They noted some of these clinical signs could have been due to the horse's primary disease, rather than the transfusion itself. They recommend monitoring horses during transfusions for signs of reactions, so veterinarians can stop plasma treatment and administer anti-inflammatory drugs if necessary.

### Tippy-Toed Foals Might Have Contracted Tendons

One of the most common deformities equine veterinarians deal with in newborns is contracted digital flexor tendons. These might cause foals to walk on the toes of their front hooves instead of walking flat-footed.

Anatomically speaking, all horses have two major tendons that run directly behind their cannon bone (the large bone between the horse's knee and fetlock). They are fittingly named the superficial flexor tendon and the deep digital flexor tendon. Because the deep tendon attaches to a bone inside the horse's hoof, if it were to be contracted or shortened, it would cause the horse's leg to curl up beneath itself—which is what happens in a case of contracted tendons.

Veterinarians can correct the deformity in many ways, but each case requires individualized treatment. Fortunately, "the prognosis for a foal born with contracted tendons is good," said Dr. Eric Carlson of the University of Illinois Veterinary Teaching Hospital. While some minor cases might not need any treatment, more severe deformities require intervention.

One of the treatment options veterinarians can try is an intravenous antibiotic, as "it is thought that the drug prevents the influx of calcium ions into the muscle fibers and brings about relaxation (of the tendon)," Carlson explained.

Other options include using toe extensions that help to change the breakover point of the hoof and stretch the tendons, as well as splints or casts. The condition might also require corrective surgery.

### **Hurricane Season Tips**

With the hurricane season upon us, it is important for horse owners to ready themselves in advance for evacuation and other recommended tasks related to hurricane preparedness. Get a [list of tips](#) from the Louisiana State Animal Response Team and the Equine Health Studies Program at the LSU School of Veterinary Medicine at [TheHorse.com](http://TheHorse.com).

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