



## Fractured Tibia/EPM Relapse

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**Q: I have an Arabian colt that fractured his tibia, partially tore a ligament and ruptured a meniscus when he was nine months old. He still has a bit of a limp and just turned 11 months. How well will he be able to function as a riding horse? I wanted to do three day eventing.**

*A: Stress fractures of the tibia, the long bone between the stifle and hock, are one of the most common causes of hind limb lameness in young Thoroughbred race horses. Uncomplicated incomplete stress fractures treated with stall rest for one to three months while monitoring healing with sequential radiographs have a good to excellent prognosis for complete recovery. Since the injury is two months old, it is time to re-radiograph him and discuss with your veterinarian the possibility of starting walking and trotting exercises.*

*Your mention of meniscal and ligamentous damage in his stifle joint causes more concern. Since these injuries are difficult to diagnose with a physical examination and can only be partially imaged with ultrasound and radiographs, a persistent lameness could be evaluated with arthroscopy. The introduction of a fiber optic endoscope into the stifle joint while your colt is under general anesthesia would help assess the degree of damage and any loose meniscal or ligamentous tissue could be removed. Post-operatively complete stall rest for three weeks followed by a controlled exercise program for six months is the most suitable regimen. Generally, injuries to the menisci or their ligaments carry a guarded prognosis. A temporary improvement is often followed by recurrent mild lameness. In some cases this is due to the development of cartilage defects in association with loose meniscal tissue. Your colt is young, however, and the regenerative powers of young horses should not be underestimated. If your colt's soundness does not improve consider arthroscopic evaluation and treatment. Whether or not your colt can be used as a three day eventer depends on many unanswered variables, but even with intermittent mild stifle lameness, he may be suitable for light riding.*

**Q: My Arabian gelding was treated successfully for EPM and appeared normal until six months after treatment when I resumed training. A month later his EPM symptoms reappeared. We are currently retreating him with Marquis. Will this second treatment cure the disease and allow him to return to training and competition?**

*A: EPM is a serious neurological disease in horses known as Equine Protozoal Myeloencephalitis. Horses are accidentally infected by an organism that is shed in the manure of the opossum. While the majority of horses in the United States have had exposure to this organism, only a small percentage develop infections of the spinal cord and brain that result in EPM. The symptoms can vary widely and can mimic other neurological disorders making clinical diagnosis merely presumptive. Diagnostic tests done on the cerebrospinal fluid provide better evidence of the presence of the disease but can be confusing since false positive and false negative results are possible. Therefore, anytime a failure to respond to appropriate EPM medication or a relapse occurs, it is important to verify the accuracy of the diagnosis. If your horse was not evaluated for EPM with spinal fluid analysis before his initial treatment, it would be wise to do these tests now to be sure that you are treating the right disease.*

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*Unfortunately, only about 20 percent of horses that are treated for EPM achieve a negative status on follow-up testing. Among the horses that remain positive to the EPM testing, 10-20 percent have a high risk of relapse during the first two years after treatment. If your gelding is still EPM positive, you have four potential courses of action: (1) repeat the treatment with Marquis (some horses are treated for as long as three months) (2) treat with Marquis combined with pyrimethamine, one of the first substances used to treat EPM (3) treat with the newest EPM medication, Navigator, which has demonstrated some efficacy on horses that have failed to respond to Marquis (4) switch to intermittent therapy, such as sulfadiazine/pyrimethamine two days every week (treating on weekends for instance). Follow up spinal fluid analysis should be done at six month intervals at which time a new six month plan can be determined.*

*Stressful events such as other diseases, long-distance transportation and heavy athletic use have been shown to predispose horses to EPM. So it might be wise to consider treating your horse for a week before and after a long-distance transportation or exertional horse show. Work closely with your veterinarian to design a treatment and monitoring program that is designed to your horse's situation and needs.*

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