

EPM

Equine Protozoal Myeloencephalitis

Equine Protozoal Myeloencephalitis (EPM) is sometimes called the master of disguise. This serious disease can be, and is, difficult to diagnose because its signs, ranging from mild to severe, often mimic other health problems in the horse. EPM can look like other equine neurologic diseases, including Wobbler syndrome, the neurological form of herpes virus infection, rabies, West Nile virus or other equine viral encephalitis diseases (e.g., Eastern and Western equine encephalitis).

More than 50 percent of all horses in the United States may have been exposed to the organism that causes EPM. The causative organism is a protozoal parasite named *Sarcocystis neurona*.

The disease is not transmitted from horse to horse, rather, the protozoa are spread by a definitive animal host. Nocturnal animals such as the opossum, raccoon, skunk, armadillo and even the domestic cat are scavengers by nature and may eat anything, including carrion.

The infective stage of the organism, the sporocysts, are passed in the feces of the host animals. The horse comes into contact with the infective sporocysts while grazing or eating feces-contaminated feed or drinking water. The large number of road-killed animals in some areas may contribute to the spread of the disease.

Once ingested, the sporocysts migrate from the intestinal tract into the bloodstream and cross the blood/brain barrier. There they begin to attack the horse's central



nervous system. The onset of the disease may be slow or sudden. If left undiagnosed and untreated, EPM can cause devastating and lasting neurological damage.

Research is showing that from the time of exposure, it can take from two weeks to two years to develop full blown symptoms. Most horses, at one time or another, probably ingest the sporocysts, and their

bodies apparently are able to mount an immune response, and they clear the organisms naturally before they reach the central nervous system. Alternatively, a horse may be persistently infected in the central nervous system, but may be able to somehow combat the organism sufficiently to prevent the development of clinical signs. There appears to be no dormant stage for this protozoa.

The disease may be preventable by just some simple house-keeping measures. Anything that may attract opossums, skunks or raccoons into barns should be tightly covered, or put away, especially at night. This includes cat food, dog food, garbage and grain. Horse feed should not be left out at night for the morning, or even during the day to attract birds. The opossum, skunk and raccoon populations should be kept under control on farms and stables, where possible.

SYMPTOMS

Symptoms can include generalized muscle atrophy or loss of condition. Secondary signs also occur with neurological disease, which include locking up of the stifle. This is among the most common findings in horses with EPM. Another common symptom is back soreness, which can be severe. EPM horses look uncoordinated as though they are likely to take a bad step while walking, racing or in training, or are taking normal steps too carefully. Therefore, any horse with these signs should be carefully evaluated for the presence of neurological disease and/or EPM.

TREATMENT

There are allopathic medications to treat the symptoms, however, there are no FDA approved drugs for treatment of the disease. A number of drugs have been used off-label, or imported from other countries for treating EPM. The most common allopathic treatment is still a combination therapy of pyrimethamine with sulfadiazine (broad-spectrum anti-microbials), most commonly available from compounding pharmacies, and anti-protozoal medications (diclazuril, toltrazuril), NSAIDS (non-steroidal anti-inflammatory drugs such as phenylbutazone and flunixin meglumine), corticosteroids and dimethyl-sulfoxide (DMSO). However most of these may have side effects, up to and including causing anemia.

There are other more natural and holistic approaches available in treating EPM, which I have seen work on many of my friends' horses. One old mare, Ms. Colonel Freckles (shown on page one), was in foal and was the worst case I have ever seen. She could barely move, and her coordination was so bad that we thought she would just fall over and not be able to get up. We were really concerned that she would pass along the protozoa to her unborn foal, and worried about the effects of this.

The vet we consult with and refer many of our clients to, Dr. Gerrald Wessner, www.holisticvetclinic.net, prescribes homeopathic remedies for EPM horses. As per Dr. Wessner's instructions, we started giving Ms. Colonel Freckles a paste of concentrated **PRO-ZYME**, while

waiting for the homeopathics to arrive. These homeopathic's naturally combat and kill the protozoa that causes EPM. After a little over two weeks on a homeopathic treatment program and high doses of [COLOSTRUM](#) and [EPM-ZYME](#) there was such a significant difference we could barely believe it!

The owner of Ms. Colonel Freckles is so pleased, she now expects a healthy colt in Spring 2005, and an even healthier mare as time goes on. She will continue to use our products to support her horse throughout her pregnancy!

DIET

The EPM horse has special needs for nutrition. They should have very little alfalfa, and their diet should be rich in orchard grass mix, timothy, and oat hay. They need help to boost their immune system, so we provide additional Colostrum to help, along with EPM-Zyme. Other clients have treated their EPM horses by adding vitamin E (1,000 to 8,000 IU per day), and [VITAMIN C](#) (1,000 - 5,000 mg per day), while others have added Folic Acid along with homeopathics, EPM-Zyme and Colostrum.

Earth Song Ranch designed the natural preventative EPM herbal formula, EPM-Zyme. EPM-Zyme contains our base formula of [PRO-ZYME](#) and includes herbs known for boosting the immune system, while having naturally occurring anti-parasitic action, and some that have anti-protozoal properties. All of these work well with homeopathic remedies. We have also included herbs to support the lymphatic system, and herbs that have anti-fungal/anti-

yeast compounds, and fight chronic inflammation.

If your horses are in an area with an active opossum, raccoon, armadillo, or skunk population, our low-cost EPM-Zyme would be a good natural preventative supplement to feed, with no side affects. ♦

DISCLAIMER

The information provided within this web site is for informational purposes only and is not intended as a substitute for advice from a veterinarian or other health care professional, and should not be used for diagnosis or treatment of any health problem or for prescription of any medication or other treatment. A health care professional should be consulted before starting any diet or supplementation program, before administering any medication, or if your horse has a health problem. Do not discontinue any other medical treatments without first consulting your health care professional.

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