

What is equine piroplasmosis (EP)?

Equine piroplasmosis is a blood-borne disease of equids (horses, donkeys, mules and zebras) caused by one of two protozoan parasites, *Theileria equi* or *Babesia caballi*.

Is EP a regulated disease?

The United States is considered “free” of the organisms that cause EP. Because of this, it is considered a foreign animal disease. Positive cases must be reported to state or federal animal health officials.

Are all equids susceptible to EP?

All horses and other equids are susceptible to this disease.

Can humans get EP?

Humans are rarely infected by the causative organisms of equine piroplasmosis.

What are the signs of infection with EP in a horse?

After an incubation period (time before onset of clinical signs) of 5-28 days, clinical signs may include fever, anemia, yellowing of the mucous membranes (jaundice), dark brown or red-tinged urine, and collapse and death in severe cases.

Can a horse become a carrier of the disease?

A horse that survives the clinical phase of the disease continues to carry parasite in their red blood cells. These persistently infected horses pose a risk for infection to other horses. Stress, such as racing, heavy exercise, or transport, may increase the levels of parasite present in the blood of the infected horse, thereby increasing the risk of disease spread.

How does EP spread naturally between horses?

Natural transmission occurs when a tick consumes a bloodmeal from an infected horse and transfers the parasite to a naïve horse or to subsequent generations of ticks. Species of ticks capable of transmitting the causative organisms are naturally

found in the United States. Additionally, an infected pregnant mare may pass the organism to her foal in utero.

How can people spread EP between horses?

People can introduce the parasite to a naïve horse through the use of infected blood or blood products, or through the use of blood contaminated equipment such as needles, syringes, surgical instruments, dental equipment, tattooing equipment, or any other equipment.

How is EP diagnosed?

The disease is diagnosed by serologic (blood) test. In the United States, testing for equine piroplasmosis is performed by complement fixation (CF) and enzyme-linked immunoabsorbant assay (ELISA) test. Both tests are used to confirm infection as one detects early infection, while the other detects chronic infection.

Is there a treatment for EP?

A treatment has been recently developed to treat *Theileria equi* infections. Positive horses can be enrolled in a state-federal approved treatment program. Treatment with an antiprozoal drug, imidocarb, is performed at the owner’s expense and must be performed by a USDA accredited veterinarian under the observation of a state or federal animal health official. The horse is quarantined for the entire length of treatment. For more information review the factsheet “Treatment of Equine Piroplasmosis”.

Is there a vaccine for EP?

There is no approved vaccine for equine piroplasmosis.

What happens if my horse tests positive for EP?

Positive tests are reported by the testing laboratory to the local state or federal animal health official. In California, a California Department of Food and Agriculture (CDFA) Animal Health Branch (AHB) veterinarian will locate the positive animal, obtain a blood sample for confirmatory testing and quarantine the horse

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What are the options for an EP positive equine?

The management options for a positive horse are enrollment into the USDA APHIS equine piroplasmosis treatment research program under quarantine, lifetime quarantine or euthanasia. Quarantine requires horses to be placed in a tick free vegetative free environment. All positive horses must be permanently identified by microchip at the owner's expense.

What happens to the other horses in my barn if I have an EP positive horse?

A regulatory veterinarian will perform an investigation to identify exposed horses which includes:

- any horse that resides with or near a positive horse, or
- any horses that may have shared equipment such as needles, syringes, dental, tattooing or surgical equipment with a positive horse, or
- nursing offspring of a positive horse and of exposed horses.

All horses classified as exposed are placed under quarantine and tested for EP. To identify recently infected horses incubating disease, all exposed horses are retested 45- 60 days after the removal of the EP positive horse. Exposed horses are placed under quarantine until the retest confirms negative EP status of the horse.

What is the current EP situation in California?

Since January 1 2014, fourteen (14) horses have been found to be positive for equine piroplasmosis in California. Eight (8) of the fourteen (14) were dually infected with equine infectious anemia virus. Eleven (11) of the fourteen (14) were racing quarter horses and three were Spanish Purebred Horses. All eight (8) dually infected animals and two EP positive horses were euthanized, and four (4) remain under quarantine while owners consider enrollment in the national EP treatment program. Investigation into the causes of this outbreak are ongoing.

How do I protect my horses from contracting EP?

This is a blood-borne disease. In order to protect horses from getting this disease, follow these guidelines:

- Always use a sterile needle and syringe for all injections, into a vein, muscle or skin.
- Disinfect all dental, tattooing and surgical equipment between horses. Make sure to remove all debris and blood with soap and water before disinfection.
- Only administer commercially licensed blood or blood products.
- Use a sterile needle each time when puncturing a multi-dose medication bottle. Consult a veterinarian to demonstrate how to use sterile technique when drawing up medications.
- Monitor for the presence of ticks on your horses. If ticks are found, consult a veterinarian as to the best tick-prevention approaches in your area.
- Contact a veterinarian if a horse is showing signs of fever, jaundice, decreased appetite or weight loss.

Where can I get more information about EP?

You may contact CDFA Animal Health Branch for more information about equine piroplasmosis.

Animal Health and Food Safety Services Animal Health Branch

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| Headquarters | (916) 900-5002 |
| Redding District | (530) 225-2140 |
| Modesto District | (209) 491-9350 |
| Tulare District | (559) 685-3500 |
| Ontario District | (909) 947-4462 |

http://www.cdffa.ca.gov/ahfss/animal_health/
http://cdffa.ca.gov/ahfss/Animal_Health/Horses_Equine_Health.html