

What is EIA?

Equine infectious anemia (EIA) is a viral disease that causes anemia, intermittent fever, and severe weight loss. Equidae, e.g., horses, ponies, mules, zebras, and donkeys, are the only animals known to be affected by the virus. Once an animal is infected with the virus, it is infected for life. Other common names for EIA are swamp fever and Coggins disease. At present, there is no vaccine or cure available. The death rate of infected equidae varies from 30 to 70 percent.

Spread of Infection

EIA is transmitted by the exchange of certain body fluids, usually blood, from an infected to a noninfected animal. Methods of transmission include:

- Insect bites - blood-feeding flies such as horseflies, stable flies, and deer flies. Note: mosquitos are not capable of transmitting EIA.
- Mechanical means - hoof knives, needles (tattooing or bleeding), syringes, etc.
- Blood transfusions

Testing for EIA

A screening test, the competitive enzyme-linked immunosorbent assay (cELISA) test, is commonly used as the initial test for EIA. If the animal tests positive on cELISA, the positive result is verified by the more specific agar gel immunodiffusion (AGID) test, also known as the Coggins test. The AGID test detects antibodies from equine blood against the EIA virus. It is extremely likely that an animal that tests positive on one occasion will do so for the rest of its life. The cELISA test is accepted for movement throughout the U.S. and Canada. You should have your veterinarian contact the United States Department of Agriculture (USDA) concerning equidae movement to other countries.

Michigan's Mandatory EIA

Testing Requirements

Michigan equidae owners must have an official EIA test with negative results within the past 12 months if equidae are:

- Entered into fairs, shows, exhibitions, or similar events. Show authorities are required to confirm proof of negative test status for entered animals.
- Consigned to or entering within one-quarter mile of the premises of horse sales or auctions, even if they are not being offered for sale.
- Sold and the change of ownership requires relocation of the animal. Testing is not required if the animal resides at the same stabling location.

Michigan law also requires any equidae entering Michigan to have a negative EIA test within the past 12 months prior to entry.

Please note:

Foals under six months of age who are nursing their dam are excluded from testing requirements of this act.

In addition to state testing requirements, sponsors, coordinators, and managers of equine events may place additional testing requirements for participation in such events.

For More Information

Contact your local veterinarian or Michigan Department of Agriculture and Rural Development - Animal Industry Division
P.O. Box 30017, Lansing, MI 48909
PH: 1-800-292-3939
FX: (517) 373-6015
www.michigan.gov/mdard

If an Animal Tests Positive for EIA:

- The state of Michigan will retest the animal to ensure an accurate test.
- If a positive test is confirmed, the animal and its herd mates will be quarantined.
- The animal's owner will then have three options:

1. Have the EIA animal(s) euthanized.

If the owner wishes to maintain the animal, any positive animal(s) will be freeze branded on the neck to identify them as Michigan EIA reactors.

2. Isolate all EIA animals at least one-quarter mile from all other non-infected equine.
3. Isolate the EIA animals in an insect-free enclosure.

- No compensation is provided by the state to the owner of an EIA animal.

Law Violations

Intentional misrepresentation or violation of a quarantine is a felony and is punishable by a fine of \$1,000 to \$50,000, not more than five years imprisonment, or both. Other violations are at the misdemeanor level and are subject to fines up to \$300, up to 30 days imprisonment, or both. Court and attorney fees incurred in the prosecution may also be charged to the defendant if convicted. Administrative fines and other penalties may also apply.

Signs of Infection

Most equidae do not show any sign of disease. In some, signs of EIA appear seven to 21 days after primary infection and may include:

- An intermittent or continuous fever, sudden rise from 100-105°F)
- Profuse sweating
- Rapid breathing
- Depression
- Weight loss (even though the animal continues to eat well)
- Swelling of the lower legs and underline

The initial signs of EIA then pass quickly into one of four patterns: carrier, chronic, subacute, or acute.

- Carrier animals appear to be healthy but harbor the agent of the disease. An animal will carry the virus for its entire life and never show signs of the disease, but is potentially able to transmit the disease. These animals may develop into acute or chronic cases after hard work, severe stress, or from other diseases.
- Chronic cases may have occasional attacks and develop classic symptoms that include a poor hair coat, weight loss, weakness, anemia, and swelling of lower legs, chest, and abdomen. These signs will later subside but may never recur. These symptoms commonly develop after stress from hard work, hot weather, pregnancy, or from other diseases.
- Subacute cases can also be very sick and then become chronic. These animals exhibit no signs of the disease for a long time, then progress to a state of continuing weight loss, rough hair coat, and anemia. Relapses of increasing severity are common.
- Acute cases are the exception rather than the rule. These animals rarely survive and can die within three to 10 days after the virus enters the bloodstream.

Preventing EIA

- Reduce flies in barns or stables and pastures by removing manure, eliminating standing water, and controlling brush.
- Use new, sterile needles on each animal.
- Clean and sterilize all instruments (knives, needles, and dental and surgical equipment, etc.) thoroughly after each use.
- Do not share saddles, bridles, or other pieces of equipment between any animals with open or bleeding wounds or sores.
- Do not breed mares or stallions that you suspect or know are infected.
- Observe your animal daily. A veterinarian should be called at the first sign of disease.
- Purchase animals only after they have been tested and found to be free of any evidence of disease. Require a copy of the test report.
- Only participate in events (show, sale, racetrack, trail ride, etc.) that require prior testing for all animals.
- Establish a routine EIA testing schedule with your private veterinarian.



Michigan Department of Agriculture & Rural Development

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Equine Infectious Anemia (EIA)



Viral Disease of Horses, Ponies, Mules, and Donkeys

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