

Heartwater

What is heartwater and what causes it?

Heartwater is a disease of domestic and wild cattle, deer, sheep and goats. It is caused by the bacteria *Ehrlichia ruminantium* (air-lick-EEah ROO-mi-NAN-tium), is spread by infected ticks, and commonly causes death of infected animals. Heartwater is widespread in most of Africa and is also found on a few Caribbean islands. Currently, heartwater is not found in the United States.

What animals get heartwater?

Wild and domestic ruminants (cattle, sheep, goats, antelope and buffalo) can get heartwater.

How can my animal get heartwater?

Animals become infected with heartwater after being bitten by an infected tick (**vector**). Ticks from the family *Amblyomma* (am-blee-OHM-ah) are responsible for the spread of the disease. Two species of ticks from this family are present in the United States. Although they do not carry the bacteria that cause heartwater, they are very similar to the tick that does - *Amblyomma variegatum*, also known as the Bont Tick. This tick has been found on imported tortoises in Florida and has the possibility to arrive on cattle egrets flying in from the Caribbean Islands.

How does heartwater affect my animal?

There are four forms of heartwater disease: peracute, acute, subacute, and the mild form (known as heartwater fever).

In the peracute form of the disease, animals experience a fever, convulsions, and sudden death.

Animals with the acute form first develop a sudden high fever, loss of appetite, depression, and breathing problems. Nervous system problems may follow, including excessive chewing motions, incoordination, circling, and a high-stepping gait. Some animals may experience convulsions. Death usually occurs within a week once signs are noticed.

The subacute form is rare, and animals experience a prolonged fever, coughing, and mild incoordination. The animal will either recover or die within 1 to 2 weeks.

Heartwater fever is a mild form of heartwater, and may occur in some breeds that have a natural resistance to the disease. A brief fever is the only sign of this form of the disease. Animals with heartwater fever usually recover.

If heartwater was introduced into the United States, the peracute and acute forms would probably be seen.



Heartwater
is a bacterial disease
spread by ticks
that causes
illness in animals.

Left photo: *Amblyomma* tick from USDA ARS;
Right: Fluid around heart from *The Gray Book*

Can I get heartwater?

No. People cannot become infected with the bacteria that causes heartwater.

Who should I contact, if I suspect heartwater?

In Animals –

Contact your veterinarian.

How can I protect my animal from heartwater?

Heartwater is considered a foreign animal disease and is not present in the United States. The best approach to prevention is controlling ticks and monitoring your cattle.

To control ticks, use an approved insecticide on your cattle. Consult with your herd veterinarian for advice on approved and effective products.

It is also essential to inspect your livestock frequently for the presence of ticks and remove them promptly if found.

For More Information

CFSPH Technical Fact Sheets. Heartwater at <http://www.cfsph.iastate.edu/DiseaseInfo/>

Heartwater: Another Potential Foreign Animal Disease. http://www.vetmed.ucdavis.edu/vetext/INF-DA/INF-DA_HEARTWATER.HTML

USDA APHIS factsheet. Heartwater. http://www.aphis.usda.gov/lpa/pubs/fsheet_faq_notice/fs_ah-heartw.html