

## Glanders

### What is glanders and what causes it?

Glanders is a highly contagious disease of equines caused by the bacteria, *Burkholderia mallei* (burk-hol-dare-EE-ah MAL-EE-eye). Glanders was once common throughout the world but programs to eradicate the disease have been successful in many countries. Glanders is not presently found in the United States but does occur in parts of the Middle East, Asia, Africa and South America. Glanders causes respiratory infection and skin lesions in equine and humans.

### What animals get glanders?

Glanders primarily affects horses, mules, and donkeys. Disease can be fatal in mules and donkeys. Infection can also occur in dogs, cats, goats and camels. The disease can also be severe for hamsters and guinea pigs.

### How can my animal get glanders?

Horses get glanders by close contact with other infected horses, especially through shared water and feed troughs (**oral**) as well as by nuzzling (**direct contact**). The bacteria can also be spread by **fomites** (non-living objects contaminated by infected animals), such as brushes, halters or harnesses.

Carnivores, especially cats, can get glanders after eating (**oral**) contaminated meat.

### How does glanders affect my animal?

The most common sign of infection in animals is yellow-green nasal discharge and ulcers on the nose. The horse may have enlarged lymph nodes and nodules on the

skin. In some cases, they may look like long, hard ropes, under the skin. Severe coughing can also occur. Long term infections can occur in horses, which may last for several years.

Disease in mules and donkeys can start rapidly (acute) and can lead to death in 1 to 2 weeks after exposure.

### Can I get glanders?

Yes. People can get glanders by having direct contact with infected animals or contaminated objects. Entry of the bacteria occurs through the skin (wounds, cuts) or through surface of the eyes and nose. People in close contact with horses (veterinarians, farriers, other animal workers as well as laboratory personnel) are at greater risk for getting glanders.

In people, the disease can affect the skin, lungs, or the entire body (systemic). Signs may include fever, chills, muscle aches, and chest pain; pneumonia can rapidly develop. Nodules or ulcers may occur in the skin or the nose, eyes, or mouth. Glanders is a very painful disease and can lead to death without treatment.



**Glanders**  
is a bacterial disease  
that can affect  
horses and humans.

Photo from USDA On-line Photography

### Who should I contact, if I suspect glanders?

**In Animals – Contact your veterinarian immediately.** Glanders is not currently found in the United States; suspicion of disease requires immediate attention.

**In Humans – Contact your physician immediately.**

### How can I protect my animal from glanders?

There is no vaccine available for glanders. Being aware of the signs and symptoms of glanders will help a great deal in the event of an outbreak in the United States. Early detection of the disease and quarantine of animals will protect against the spread of the disease.

### How can I protect myself from glanders?

Prevention for people involves identifying and eliminating the disease in the animal population. If you see the signs or symptoms of glanders in a horse, mule or donkey, call your veterinarian immediately and avoid contact with the animal. Wearing gloves and hand washing after contact with infected animals can greatly minimize your risk.

### For More Information

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

CDC website. Glanders at [http://www.cdc.gov/ncidod/dbmd/diseaseinfo/glanders\\_g.htm](http://www.cdc.gov/ncidod/dbmd/diseaseinfo/glanders_g.htm)