FAST FACTS

Bovine Spongiform Encephalopathy (BSE)

Mad Cow Disease

What is BSE and what causes it?

Bovine spongiform encephalopathy (en-CEF-A-LOP-a-thee), also called BSE or "mad cow disease," is a disease that affects the brain of cattle and humans. Most scientists believe that it is caused by an abnormal protein in brain tissue, called a prion (PRY-on), that can cause fatal disease when eaten.

The disease was first diagnosed in the United Kingdom in 1986. Since then the disease has occurred in many European countries as well as Japan, Canada and the United States. Most of the reported cases of BSE (95%) have occurred in the United Kingdom.

What animals get BSE?

BSE is a disease of cattle; however, under experimental conditions, scientists have found that sheep, goats, pigs, cats, mink, mice, marmosets and some species of monkeys can be infected with the BSE agent.

How can my animal get BSE?

Most cattle are infected when they ingest **(oral)** prion contaminated "ruminant" meat and bone meal contaminated with prions. This dietary supplement has been banned from feed since 1997 in the United States. A few cows may be able to pass BSE to their offspring, but animals don't infect each other by direct contact. It has never been found in milk, meat or blood.

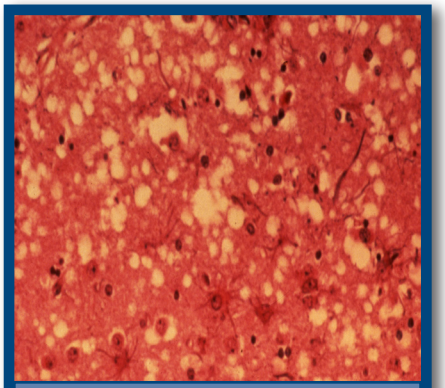
How does BSE affect my animal?

BSE is typically a slow developing disease. Infected cattle appear normal for 2 to 8 years. As the disease develops, the brain is affected. Signs such as trembling, stumbling, swaying and behavioral changes (e.g., nervousness, aggression or frenzy) are seen. Weight loss and a drop in milk production may be noted. Rarely, cattle with BSE will become suddenly ill within days. All cattle with BSE will die from the disease.

Can I get BSE?

Yes. Humans who eat BSE-contaminated beef products can develop a disease called variant Creutzfeldt-Jakob (KROITZ-felt YAH-cub) disease (vCJD). This disease is called 'variant' to distinguish it from a different, genetically acquired disease of humans called classic Creutzfeldt-Jakob disease (CJD).

Initial signs of vCJD include behavioral changes and abnormal sensations. As the disease progresses, incoordination and dementia develop, followed by coma and death. There is no cure for vCJD. Most people die within a year after signs occur. Most cases have been in people who lived in the United Kingdom during the BSE outbreak in the late 1980s.



BSE or "mad cow disease" causes "spongy" holes in the brain tissue of affected cattle.

Photo from USDA APHIS, Dr. Al Jenny

Who should I contact if I suspect BSE?

In Animals – Contact your veterinarian immediately.

In Humans – Contact your physician immediately.

How can I protect my animal from BSE?

Only a few cases of BSE have ever been found in the U.S., so the risk that your animal will become infected is very low. As a precaution, the government has passed regulations to prevent certain tissues from being fed to cattle or other ruminants.

How can I protect myself from vCJD?

In the U.S. your risk of getting vCJD is extremely low. Regulations prevent certain tissues of cattle from being used in human foods. Import restrictions prevent BSE positive cattle from entering the U.S. and there is a monitoring program for the disease.

BSE does occur in other countries but most have implemented strict control measures to prevent the disease from entering the human food supply. Milk and milk products are thought to be safe.

For More Information

CFSPH Technical Fact Sheets. Bovine Spongiform Encephalopathy at http://www.cfsph.iastate.edu/DiseaseInfo/

CDC website. Variant Creutzfeldt-Jakob Disease at http://www.cdc.gov/ncidod/dvrd/vcjd/

USDA-APHIS-VS. BSE at http://www.aphis.usda.gov/newsroom/hot_issues/bse/index.shtml

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