

Mad Cow Disease



Effects of Mad Cow disease

- Mad cow disease, or bovine spongiform encephalopathy (BSE), is a fatal brain disorder that occurs in cattle and is caused by some unknown agent. In BSE, the cow behaves strangely and eventually dies.



To the cattle industry, an outbreak of mad cow disease is an ever-looming nightmare.

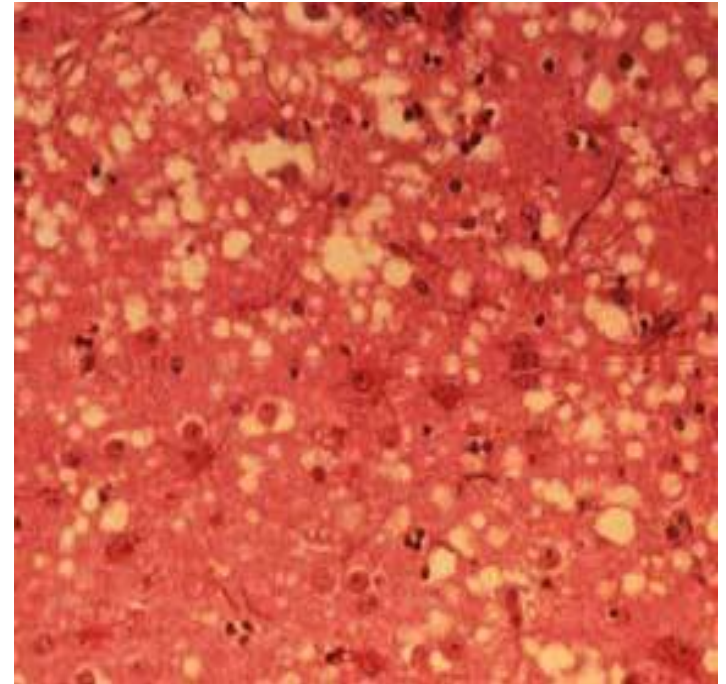
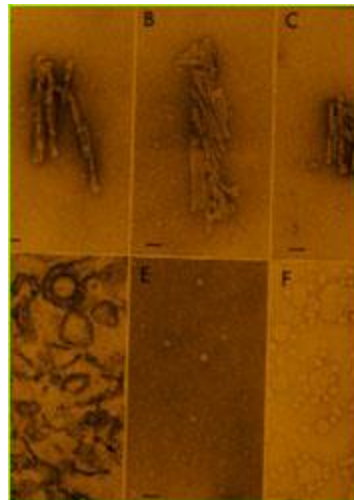
- First identified by a veterinarian in England in 1968.
- Scientifically known as Bovine Spongiform Encephalopathy, or BSE
- Disease may have passed to cattle through feed containing protein or bone meal from infected sheep with similar disease.



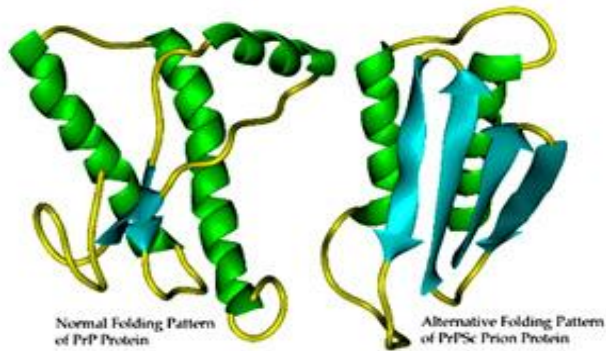
- The connection between BSE and humans was uncovered in Great Britain in the 1990s when several young people died of a human brain disorder called Creutzfeldt-Jakob Disease (CJD), which typically strikes older people.
- BSE is thought to have come from a similar disease in sheep called “scrapie”

What are “Prions”?

- Scientists believe that Mad cow and related diseases are caused by abnormal proteins in the nervous system, called “prions”



The brains of effected cows have a sponge-like appearance in the tissue



- Prions are different from bacteria, viruses or any other known disease causing agent. They are not living!
- Prions enter the body when people eat infected meat.
- Once in the body, prions convert normal proteins in the nervous system into abnormal prion shapes.
- The disease progresses to a mad cow or other similar diseases and death.

Symptoms



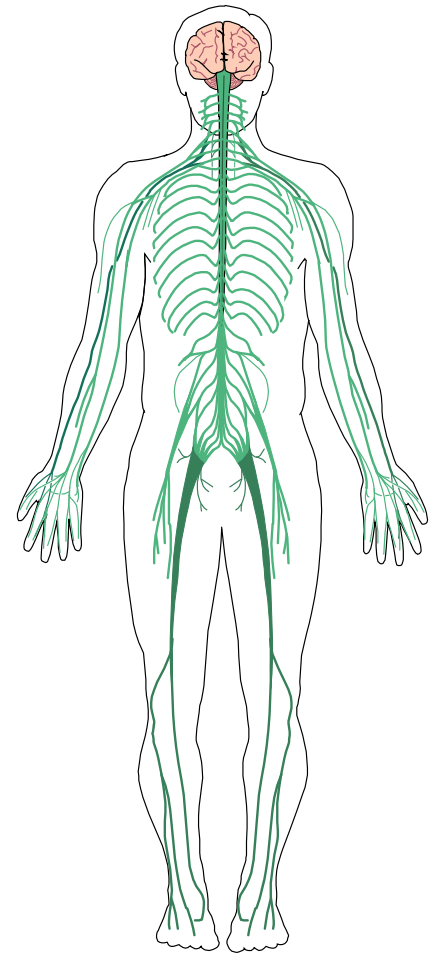
Cattle affected by Mad Cow Disease experience nervousness, aggression, or other changes in temperament, abnormal posture lack of control, loss of weight and death.

How can humans get BSE?

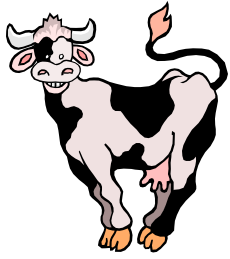
- Scientists have linked Mad Cow Disease to a similar disease in humans.
- Humans contract the disease by consuming parts of the nervous system or meat contaminated by nervous system tissue from infected cattle.
- The human form is called “variant Creutzfeldt-Jakob Disease” (vCJD)



- vCJD is a fatal disease of the nervous system.
- CJD is another form of vCJD that affects the nervous system of humans.
- vCJD can be confirmed only through examination of the patient's brain tissue through biopsy or autopsy.



Creutzfeldt-Jakob Disease attacks the nervous system, the brain and spinal cord.



Control and Prevention

- USDA prohibits imports of live ruminants or ruminant products from Europe.
- USDA tests any cattle showing signs of abnormal behavior.
- USDA inspects all cattle used for food for neurological diseases.
- The US Food and Drug Administration has prohibited using mammalian proteins in making animal feeds for ruminants.

