What is Bovine Spongiform Encephalopathy?
Bovine spongiform encephalopathy (BSE), widely referred to as "mad cow disease," is a chronic degenerative disease affecting the central nervous system of cattle.

It is one of a family of diseases called TSEs, or transmissible spongiform encephalopathies, named for the sponge-like gaps that develop in the brain tissue of diseased animals or people.

One TSE disease that affects humans is called Creutzfeldt-Jakob Disease (CJD), and a form of this disease, variant CJD (vCJD). There is strong scientific evidence that the agent that causes BSE in cattle is the agent that causes vCJD in people. There are no reported cases of BSE or vCJD in the United States.

Who can get BSE?
It has been found in many European countries, and also in countries outside of Europe, including Japan, Canada, and the United States. To date, however, more than 95 percent of the total cases worldwide have occurred in the United Kingdom.

During the 1980s, the rapid growth of the BSE outbreak emerging in the United Kingdom was traced to the practice of adding cattle-derived meat-and-bone meal to cattle feed. Although preparing such feed involved rendering procedures that inactivate most infectious agents, prions can be highly resistant to heat, radiation, and chemicals that kill other pathogens.

How is BSE spread?
BSE is not a contagious disease and therefore is not spread through casual contact between cattle. The primary source of BSE infection in cattle is commercial feed contaminated with the infectious agent.

Humans contract “variant” CJD (or vCJD) by eating contaminated beef products from “mad cows” infected with bovine spongiform encephalopathy, or BSE.

What are possible symptoms?
Cattle affected by BSE experience progressive degeneration of the nervous system. Affected animals may display nervousness or aggression, abnormal posture, difficulty in coordination and rising, decreased milk production, or loss of body weight despite continued appetite. All infected cattle die.

How is BSE diagnosed?
Currently, there is no test to detect the disease in live cattle; veterinary pathologists confirm BSE by postmortem microscopic examination of brain tissue or by the detection of abnormal prions in brain tissue.

What is the treatment for BSE?
There is neither any treatment nor vaccine to prevent the disease.

For more information on BSE:
U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services
English 1-301-734-6954

Centers for Disease Control and Prevention
www.cdc.gov/ncidod/dvrd/prions/index.htm
English 1-800-232-4636
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