



Questions and Answers about BSE:

What is “mad cow disease” (bovine spongiform encephalopathy)?

“Mad cow disease” is the common name for bovine spongiform encephalopathy (BSE), a transmissible, degenerative, fatal disease affecting the central nervous system of adult cattle.

Does BSE affect humans?

BSE only affects cattle. However, a disease similar to BSE called variant Creutzfeldt-Jakob Disease (vCJD), or vCJD, is found in humans. A small number of cases of vCJD have been reported, primarily in the United Kingdom, in people who consumed beef that may have been contaminated. Strong scientific evidence (epidemiological and laboratory) suggests that the agent that causes BSE in cattle causes vCJD in people.

The disease is very hard to diagnose until it has nearly run its course. In its early stages, vCJD may manifest itself through neurologic symptoms, but brain abnormalities detectable by x-ray or MRI cannot be seen until the disease’s latter stages.



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Is it possible to get vCJD from eating food purchased in the United States?

The disease has been associated with the consumption of foods produced from BSE-infected animals. Because of food regulations and surveillance programs, it is unlikely that food purchased at a U.S. grocery store or restaurant would be contaminated. The U.S. Department of Agriculture’s Animal and Plant Health Inspection Service has restricted the importation of live ruminants, such as cows and sheep, and most food products from these animals from BSE countries since 1989, and from all European countries since 1997.

In addition, no meat products from ruminant animals from the 33 countries identified as having BSE or at risk for having BSE are allowed in the U.S. This includes meat products used in human, animal, and pet foods. Milk and milk products continue to be imported into the U.S. from these countries because milk and milk products are not believed to pose any risk for transmitting BSE to humans.

What is being done to determine whether vCJD is occurring in the U.S.?

With heightened concern about vCJD in Europe, the Centers for Disease Control and Prevention have enhanced vCJD surveillance in the U.S. To date, one case of vCJD has been reported in the United States. A young woman contracted the disease while residing in the U.K. The symptoms appeared years later, after she moved to the U.S.

Questions and Answers about BSE: *(continued)*

What is the risk to Americans traveling to foreign countries?

According to the Centers for Disease Control and Prevention, the current risk of acquiring vCJD from any specific country appears to be extremely small, but cannot be precisely determined because cattle products from one country might be distributed and consumed in others.

When and how did BSE in cattle occur?

BSE was first reported among cattle in the United Kingdom in 1986. At its peak, in January 1993, almost 1,000 new cases per week were identified. There is strong evidence that the outbreak in cattle was made worse in the United Kingdom by feeding rendered bovine meat-and-bone meal to young calves. The nature of the transmissible agent in BSE is not known. Currently, the most accepted theory is that the agent is a modified form of a normal cell surface component known as a prion protein. Why or how this substance changes to become disease-producing is still unknown. Prions are resistant to common treatments, such as heat, to reduce or eliminate their infectivity or presence.

Milk and milk products from cows are not believed to pose any risk for transmitting the BSE agent because experiments have shown that milk from BSE-infected cows has not caused BSE in cows or other test animals.

Is BSE affecting cattle in the United States?

On December 23, 2003, the U.S. Department of Agriculture (USDA) announced that an adult Holstein cow from Washington state had been diagnosed with BSE. Investigators have since confirmed that the BSE-infected cow was imported into the United States from Canada in 2001.

Federal and state agencies have taken a series of actions to prevent the introduction of BSE into the U.S. food supply. For example, to prevent BSE from entering the United States, firm restrictions were placed on the importation of live ruminants and ruminant products including meat, meat-and-bone meal, offals, and glands from countries where BSE was known to exist. These restrictions were later extended to include importation of ruminants and certain ruminant products not only from BSE-positive countries, but also countries thought to be at high risk for BSE, even if the disease hadn't been identified in those countries.

In addition, the Food and Drug Administration (FDA) prohibits the use of most mammalian protein in the manufacture of animal feeds given to ruminants because this kind of feeding practice is believed to have initiated and amplified the outbreak of BSE in the United Kingdom.

Is the beef in the U.S. considered safe to eat?

FDA, in collaboration with other federal agencies, has preventive measures already in place to reduce Americans' risk of exposure, and continues to implement policies to prevent exposure through FDA-regulated products, including food, food ingredients, dietary supplements, and cosmetics that contain bovine materials.

FDA will continue to work with USDA to stop a wide variety of products (animal feed, human food) with bovine-derived materials from being imported into the U.S. from BSE-restricted countries, including Canada. In addition, both FDA and USDA are cooperating with the Customs Service to ensure food safety at the border.

