

“Mad Cow Disease”
Bovine Spongiform Encephalopathy and
New Variant Creutzfeldt Jacob Disease
12/30/03

Mad Cow disease is the layperson's name for Bovine Spongiform Encephalopathy (BSE), a transmissible, slowly progressive, degenerative, fatal disease affecting the central nervous system of adult cattle.

On December 25, 2003 the first animal case of BSE was confirmed in a cow in Washington State.

This one case of BSE does not mean that the U.S. food supply is any less safe today than it was before this case was confirmed. The agent that causes BSE is found only in hoofed animals and only in certain tissues such as the spinal cord and brain. These tissues are typically removed at slaughter and do not enter the food chain. There has been no scientific evidence of the infective agent being detected in milk or muscle tissue. According to the USDA, all cattle are inspected before being slaughtered, and any cattle that show signs of neurological disorders are tested for BSE. BSE is rarely found in animals less than 30 months of age. The majority of the beef eaten in the United States is from cattle that are younger than 24 months.

The human health concern is the fact that BSE is linked to human deaths of variant CreutzfeldtJakob Disease (vCJD) overseas, particularly in the United Kingdom. The risk to human health from BSE in the United States is extremely low.

It is believed that the persons overseas who have developed vCJD became infected through eating cattle products contaminated with the agent of BSE. There is no known treatment of vCJD and it is fatal.

In the UK, where over 1 million cattle may have been infected with BSE, a substantial species barrier appears to protect humans from widespread illness. As of December 1, 2003, 143 cases of vCJD have been reported in the UK. There has never been a case of vCJD that did not have a history of exposure within a country where this cattle disease, BSE, was occurring.

The incubation period for vCJD is unknown because it is a new disease, however it is likely that the incubation period is many years or decades.

This variant form of CJD should not be confused with the classic or sporadic form of CJD that is seen throughout the world, including the United States. At this time, there is no consistent evidence that the number of cases of the classic or sporadic form of CJD is increasing in the US.

BSE does not spread naturally from adult cow to adult cow. There is strong evidence and general agreement that the outbreak in the United Kingdom was amplified by feeding processed cattle meat-and-bone meal to young calves.

Since 1997, the United States Food and Drug Administration has prohibited the feeding of most mammal protein, such as cattle meat-and-bone meal, to hoofed animals such as cows, sheep and goats. This regulation was put in place to prevent the spread of BSE further throughout the US cattle herds, should it occur.

New York State participates in nationwide BSE surveillance in cattle. The NYS Dept. of Agriculture and Markets (NYSDAM) submits for BSE testing all cattle over 2 years of age with neurologic signs before slaughter, as well as cattle meeting a number of other criteria. Cattle brains submitted

to the NYS Dept. of Health Wadsworth Center's Rabies Laboratory are also submitted for BSE testing through NYSDAM and the USDA after rabies is ruled out. No animal cases of BSE have been detected in NYS.

- The NYS Dept. of Health participates in human CJD case surveillance, including enhanced case investigation, and encourages the submission of available samples for a national testing program to determine whether the cases fit the pattern of classic CJD or vCJD. No human cases of vCJD have been detected in NYS.

- Agricultural officials believe that the consumer protection procedures in place prior to the Washington State BSE case, and procedures taken after the diagnosis, make the risk of consuming animal products minimal.

Further information and fact sheets about BSE and CJD can be found at:

<http://www.cdc.gov/ncidod/diseases/cjd/cjd.htm> <http://www.state.health.ny.us>

<http://www.fda.gov/bbs/topics/NEWS/2003/NEW00999.html>