**Mad Cow Disease**

**About Mad Cow Disease**

Mad cow disease has been in the headlines in recent years. While a serious illness, it primarily affects cattle and, possibly, other animals, like goats and sheep. The medical name for mad cow disease is **bovine spongiform encephalopathy**, or BSE for short.

BSE is an incurable fatal brain disease. It is called mad cow disease because it affects a cow's nervous system, causing the animal to act strangely and lose control of its ability to do normal things, such as walk.

Only certain animals can get BSE — people don't actually get mad cow disease. However, experts have found a link between BSE and a rare brain condition that affects people called **variant** **Creutzfeldt-Jakob disease (vCJD)**. Researchers believe that people who eat products from cows that have BSE are at risk of developing vCJD.

vCJD is caused by an abnormal type of protein in the brain called a **prion**. When people have vCJD, cells in the brain die until the brain eventually has a "sponge-like" appearance. During this time, people with the disease gradually lose control of their mental and physical capabilities.

To date, very few people have been diagnosed with the form of vCJD. By October 2009, only 217 cases of this rare condition had been reported worldwide. Of these, most were identified in Britain. Several of the people diagnosed with the disease outside Britain — including two cases in the United States — had a history of exposure in Britain.

**Is It Contagious?**

Because the form of vCJD that's been linked to mad cow disease is relatively new and extremely rare, experts are still learning about it. However, researchers believe that the disease is not contagious among people — in other words, you can't get vCJD from someone else who has it. There have been a few cases of vCJD that are believed to have been transmitted through blood transfusions. At present, it appears that the main way people get the disease is from eating contaminated meat.

Experts don't yet know exactly how long the incubation period is for CJD (in other words, how long it takes from the time a person contracts it to the time that symptoms appear). However, they do believe that it takes years, if not decades, from the time someone gets the disease until the first signs appear. Once they do, the brain can deteriorate within a year. At this time, there is no known treatment for the disease.

**What Is Being Done About It**

BSE doesn't spread naturally from cow to cow; it's suspected to be transmitted by feeding cows animal meal. However, the U.S. Food and Drug Administration (FDA) introduced an "animal feed" rule in 1997 prohibiting the feeding of most proteins made out of mammals to ruminant animals (such as cows, sheep, and goats), which was what was thought to have begun the BSE epidemic in the United Kingdom.

The type of protein that causes mad cow disease can't be removed or destroyed when beef is processed or cooked. For this reason, the U.S. government has established several procedures to protect the public. One of these involves removing the parts of the cow that are at highest risk of containing BSE-causing proteins — the brain and spinal cord — to reduce the chances of contaminating the meat people eat.

In 2009, the FDA implemented additional safeguards to help protect consumers from BSE. These prohibit the use of any high-risk cattle materials in the feed of any animal. In this way, the FDA continues to decrease the already tiny possibility of infection with BSE.

In addition, there is a system in which samples of animals are tested. This is one way to help prevent contaminated meat from reaching the shelves. The testing system helped officials identify some contaminated meat in Washington state in December 2003 — one of only three cases of mad cow disease found in the United States so far. The government also has a recall policy in place for meat that's suspected of being contaminated.

If you're wondering if you can get vCJD from cow's milk, the FDA says there is no evidence that the disease can be transmitted through cow's milk and milk products. It's also extremely unlikely that a person will contract CJD from eating beef.

vCJD itself is pretty rare — there have been only three people in the United States to die of the disease. And because of the control measures now in place, the chance that you or anyone in your family will eat meat infected with BSE is extremely low.