



Variant Creutzfeldt-Jakob Disease (vCJD)

What is Variant Creutzfeldt-Jakob Disease (vCJD)?

Variant Creutzfeldt-Jakob Disease is also called human mad cow disease or human bovine spongiform encephalopathy (BSE). It is a rare, degenerative and fatal brain disease that can occur in people. The disease damages brain cells and the spinal cord.

What are the symptoms of vCJD?

Early symptoms of vCJD include mood swings and memory loss. The disease also causes problems with movement and advances quickly to a vegetative state and death. It may take anywhere from 5 to 15 years for symptoms of vCJD to develop from the time of being infected. vCJD can occur at any age, but the disease is most common in people under 30 years of age.

Since the discovery of vCJD in 1995 there have been more than 200 cases of vCJD reported worldwide. Most cases have occurred in the United Kingdom (UK). A few cases of vCJD have been reported in Canada but these people were infected in other countries.

What causes vCJD?

vCJD is caused by an abnormal prion – a protein found on the surface of cells. The disease is caused when an abnormal prion attacks the brain, killing cells and creating gaps in tissue or sponge-like patches. The vCJD prion is the same prion found in cows with BSE.

How does a person get vCJD?

vCJD is not passed from person to person. However it can be passed from someone with vCJD to others through blood transfusions, though this is extremely rare. It can also be passed onto people who eat BSE-infected cow parts or beef. In Canada, to date there have been 16 reported cases of BSE in cows. No part of these cattle has entered the human food supply. None of the reported cases of vCJD resulted from eating Canadian beef.

How does a cow get BSE?

BSE collects in the brain, skull, spine, nerve tissue and gut lining of cows. It is passed from cow to cow when their feed contains contaminated material from infected cows. For more information on BSE, visit the Canadian Food Inspection Agency at www.inspection.gc.ca/english/toce.shtml.

What precautions are taken to avoid the spread of BSE?

To avoid the spread of BSE, contaminated material is not fed to cows raised for human consumption in most countries including Canada, the United States, and the UK.

People who lived in specific countries between 1980 and 1996 are not allowed to give blood in Canada. For more information, see the Canadian Blood Services 'vCJD Travel Deferral' policy which can be found at <http://www.bloodservices.ca/>.

How do you test for vCJD?

Tests for vCJD are done on the fluid from around the spine, but they are not always accurate. The diagnosis is made by a neurologist who looks at symptoms and brain images using CT and MRI scans. It can be difficult to detect gaps in tissues or sponge-like patches because they only show up at a late stage of the disease. The final diagnosis is made after death, using a microscope to view brain cells.

In individuals with vCJD, life-threatening complications tend to develop approximately 2 years after initial symptoms occur.

How is vCJD treated?

There is currently no cure for vCJD. Treatment involves supporting the patient with physical and occupational therapies. A person with vCJD eventually becomes confined to bed and must be fed by a tube.

Is vCJD related to classical CJD?

CJD and vCJD are not the same disease. They are part of a group of diseases caused by abnormal prions. The symptoms are similar, although CJD usually occurs in adults between the ages of 45 and 75. It is not connected to eating BSE-infected cow parts.

For more information

For more information on CJD, see HealthLink BC File [#55a Creutzfeldt-Jakob Disease \(CJD\)](#).



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