

# The Risk of Mad Cow Disease in Dietary Supplements

## The risk of bovine materials in supplements

Pills made from the brains, eyes, and glands of cattle expose users to more risk from mad cow disease than do meat products, scientists say. This is because the consumer is directly exposed to the cow's brain or glands, the parts of the animal that contains the highest concentration of the mutant proteins that cause mad cow disease. If this tissue is infected, experts say, this would almost certainly result in a case of human variant Creutzfeldt-Jakob. As little as 100 milligrams of infected tissue would be enough to cause vCJD. The recommended dosage of most glandulars is one tablet daily, at least 300 milligrams. Dr. Michael Greger, who has done extensive research on mad cow disease for the Minnesota-based Organic Consumers Association, agrees that the average dose could provide enough of the tissue needed to cause vCJD, if the tissue were from an infected cow.<sup>1</sup>

In November 1992, the Food and Drug Administration (FDA) issued a letter to manufacturers of dietary supplements, informing them of a concern that central nervous system tissue used in supplements may come from countries experiencing Bovine Spongiform Encephalopathy, the scientific name for "mad cow" disease. The FDA requested that manufacturers assure that their tissues were from BSE-free countries. The letter added that "FDA has recently been involved in investigating a consumer complaint involving a confirmed case of CJD...In the course of this investigation, FDA learned that the woman had taken a bovine tissue-containing dietary supplement. Although at the present there is no basis to conclude that this supplement played any role in causing this disease, FDA and NIH have decided that is prudent to further investigate this matter. Therefore, both agencies have begun to conduct cooperative studies to determine whether nutritional supplements containing brain, nervous tissue or glandular materials from bovine and ovine species might be linked to human spongiform encephalopathies."<sup>2</sup>

In 2000, the FDA issued an "import alert" warning the health-food industry not to use animal parts from countries infected with BSE in nonprescription drugs sold in health-food stores. Peter Lurie of Public Citizen's Health Research Group responded, citing loopholes in the law. Lurie said shipments between countries make it difficult to determine the exact country of origin of many of the materials sold as dietary supplements or in health food stores.<sup>3</sup> In fact, in late 2000 the United Nations estimated that at the height of the mad cow epidemic in Britain at least 500,000 tons of untrackable bovine byproducts were exported from Britain to Western Europe and other nations around the world, including the United States.<sup>4</sup>

## Latest regulations on dietary supplements with bovine materials

In January of 2004, the US Food and Drug Administration imposed new rules banning a wide range of bovine-derived material from FDA-regulated human food, dietary supplements, and cosmetics. The banned materials include anything derived from cow brain, skull, eyes, and spinal cord of cattle 30 months or older, and a portion of the small intestine and tonsils from all cattle. This includes products being imported from other countries.

The number of immediately effected products is small - fewer than half of 1 percent of dietary supplements contain animal glands or organs, according to industry trade groups - and none will be pulled from the shelves immediately, say FDA officials.<sup>5</sup>

## Loopholes in the new rules

One problem with this new rule is that for the dietary supplement industry it's like a "rule of thumb." These supplements are largely unregulated by the FDA - the FDA is only responsible for taking action against any unsafe dietary supplement product after it reaches the market.<sup>6</sup>

A second problem is the FDA inspects less than 1 percent of all imports under its jurisdiction.

A third problem is that animals other than cows get similar brain diseases, including "chronic wasting disease" that afflicts deer and elk in certain Western states and scrapie in sheep. Since some supplement labels don't reveal which animal the tissue used came from, this could be a problem. Some supplements don't even clearly label animal tissue, merely listing "orchis," for example, as an ingredient few laymen would recognize means testicles.<sup>7</sup>

A fourth problem is that cattle over 30 months of age are not cattle more at risk of BSE, as the USDA and FDA are assuming. Since BSE has a long incubation period, symptoms may not show in infected cattle below 30 months, or 2½ years, of age, but disease is still present. To date, cattle as young as 20 months have been diagnosed with BSE.

### **Other risks from bovine materials in supplements**

Dietary supplements composed of bovine materials present risks beyond those of mad cow disease. In 1992, the FDA commissioned a study on the dietary supplement industry. Its section on glandulars found that they may be dangerous because they may contain antibiotics, hormones, pesticides, herbicides or fertilizers to which the animal was exposed.<sup>8</sup>

### **What about animal-derived gelatin capsules?**

One issue experts do agree on is that gelatin capsules encasing many drugs and vitamins do not pose a serious mad cow risk, because they are made from the bones and skins of cows, not tissue from the central nervous system.<sup>9</sup>

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<sup>1</sup> Kawar, Mark. "Cattle parts in pills could spread risk." Omaha World Herald, June 5, 2003.

<http://www.organicconsumers.org/madcow/pills6503.cfm>

<sup>2</sup> Rampton, Sheldon, and John Stauber. Mad Cow U.S.A. – Could the Nightmare Happen Here? Maine: Common Courage Press, p. 150.

<sup>3</sup> Gay, Lance. "Concern over 'mad cow' entering through diet supplements." Scripps Howard News Service, April 6, 2001. <http://www.organicconsumers.org/madcow/concern4601.cfm>

<sup>4</sup> Blakeslee, Sandra. "Stringent Steps Taken by US on Cow Illness." New York Times, January 14, 2001.

<http://www.organicconsumers.org/meat/madcowexplosive.cfm>

<sup>5</sup> Marshall, Lisa. "Mad cow rules may prohibit many 'glandulars'" Daily Camera, February 2, 2004.

<http://www.organicconsumers.org/madcow/glandulars20204.cfm>

<sup>6</sup> U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition. "Dietary Supplements – Overview." <http://www.cfsan.fda.gov/~dms/supplmnt.html>

<sup>7</sup> Neergaard, Luran. "Supplements Raise Mad Cow Concerns." The Associated Press, February 05, 2001. <http://www.organicconsumers.org/meat/orchis.cfm>

<sup>8</sup> Kawar, Mark. "Cattle parts in pills could spread risk." Omaha World Herald, June 5, 2003.

<http://www.organicconsumers.org/madcow/pills6503.cfm>

<sup>9</sup> Foster, Heath. "Some pills contain dried cow parts." Seattle Post-Intelligencer, December 31, 2003.

<http://www.organicconsumers.org/madcow/parts123103.cfm>