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## **3,800 Britons may carry mad cow protein: study**

By CTV.ca News Staff, with a report from CTV's Tom Kennedy

According to new research published Friday, the human form of mad cow disease could be more widespread in Britain than first thought.

Scientists studied more than 12,000 appendix and tonsil samples removed during routine operations in the 1990s. Three of the samples showed evidence of prion protein accumulation, which is associated with variant Cruetzfeldt-Jakob Disease (vCJD), the human form of mad cow disease.

If those numbers are extrapolated across the British population, it means there may be 3,800 people carrying the disease without knowing it.

David Hilton, lead author of the report, said the findings need to be interpreted with caution but cannot be discounted.

"We thought we wouldn't find any positives so it was slightly surprising to find any at all," Hilton said. "But it's important to note that of the three positives, two of them show differences from known cases of variant CJD."

"There is still much to learn about vCJD and the presence of the protein in these tissue samples does not necessarily mean that those affected will go on to develop vCJD," Hilton said.

Other scientists are reacting to the study's findings.

"They scream out at me that we still need better diagnostic tests," Sir Leszek Borysiewicz of Imperial College in London told Reuters. "It is a relatively unusual condition but every case is one more than you would want," he said.

The disease first began showing up in cattle, and then in the mid-1990s, in people too. Since vCJD was first discovered, 141 Britons have died of the illness.

Tighter controls meant healthier herds, and the human death rate has declined. Experts say the incubation period for the disease can be 10 to 20 years.

The British Health Protection Agency is collecting samples from tonsils removed of 100,000 people, in order to do more testing.

**Melbourne Herald Sun**  
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## **Britain has mad cow time bomb**

**By Nigel Hawkes**

BRITAIN is facing a medical time bomb, with research suggesting thousands of people unknowingly carry the human form of mad cow disease.

In the largest study into potential effects of variant-CJD, published yesterday, scientists say up to 4000 people in Britain may be infected by the agent responsible for the killer degenerative brain disease.

Some may already be passing it on through blood transfusions and contaminated surgical instruments, so the disease may kill for decades.

Experts warned that the government-funded study, published in the Journal of Pathology, may even have underestimated the threat.

Pathologists who examined more than 12,500 tonsil and appendix specimens from hospital operations found evidence in three cases of the rogue prion protein responsible for variant Creutzfeld Jakob disease - the human form of mad cow.

If the proportion is repeated for the country as a whole, about 3800 people would be carrying the infective agent - far more than the 141 who have died of vCJD so far.

The samples were anonymous, so it is impossible to identify the three people who tested positive. Most of the samples came from patients aged between 20 and 29 at the time of their operations - the peak age for vCJD.

"I find these results very concerning," said Professor John Collinge, head of the Medical Research Council Prion Unit at St Mary's Hospital in London.

"Our experience is that looking at appendix samples will underestimate the true picture. In addition, no test is 100 per cent effective, and you don't know at what stage in the incubation period the test will be positive."

Professor James Ironside, senior pathologist at the National CJD Surveillance Unit in Edinburgh, who took part in the research, said: "There would seem to be more positives than you would expect given the known number of vCJD cases and the fact they seem to be declining.

"The findings do have to be taken seriously. Generally one has to be cautious about interpreting these data, but they may indicate there are people who are not infected in the normal way but could represent a source of infection."

When vCJD first appeared in Britain in 1996, estimates of the number of people who might be infected ranged as high as 500,000. But as the number of cases rose more slowly than expected, the projections have fallen to somewhere between a few hundred and a few thousand.

Because people may be unwittingly carrying vCJD infection does not mean they will inevitably get the disease. But even if it remains permanently in a sub-clinical state, there are alarming implications for surgery and blood transfusions.

Carriers might pass on the infectious prion to those who are more susceptible, through contaminated instruments or blood. Alternatively, the ultimate toll may rise higher, and has so far grown slowly because only those most susceptible have developed the full symptoms.

People with a particular genetic pattern are known to be most susceptible to the disease, and so far all the victims come from this group.

But others may get it after a longer incubation period. Cases of kuru, a related disease affecting cannibals in Papua New Guinea who eat infected brains, continue to appear 50 years after cannibalism ended.