

THE SEX ISSUE

Is Mad Cow an STD?

No, but the government seems to think it is.

By Juliet Lapidos

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U.S. sperm banks are facing a [Scandinavian sperm shortage](#). For the past few years, companies like [Cryos International](#) have been using frozen stocks to cope with high demand for blue-eyed Nordic babies, but they can't replenish their supply because of a 2005 [FDA ban](#) [PDF] on sperm from all European countries with exposure to mad cow. Can you really get the disease from artificial insemination?

Probably not. Bovine spongiform encephalopathy appears to be caused by abnormal proteins called [prions](#). Scientists don't fully understand the mechanism of transmission, but the human form of the disease—called [variant Creutzfeldt-Jakob disease](#)—is usually contracted by eating diseased beef. It's also possible for vCJD to spread between people through blood transfusions. Yet there have been no cases of reproductive transmission, and there's no scientific evidence that sperm carry the disease.

There is a chance that the nasty prions could spread through [macrophages](#)—large white blood cells found in semen. Even so, prospective parents have nothing to fear from European donors for two reasons. First, overall rates of vCJD infection are extremely low. The [National CJD Surveillance Unit](#) estimates that there are only five new diagnoses in Great Britain every year, and half of those apply to women, who can't be sperm donors. Among all Europeans, the FDA approximates the relative risk at just 1.5 percent of those already minuscule U.K. levels. Second, sperm banks [wash semen samples](#) free of debris and white blood cells before intrauterine insemination.

So, what's with the ban? The FDA doesn't always distinguish between reproductive and non-reproductive tissue donations. Thus clinicians must screen *all* prospective donors, whether they're donating eye tissue or semen, for certain communicable diseases, including HIV and vCJD. Since there's no approved vCJD test, the clinician must exclude candidates based on "risk factors," like living in Europe. It's logical to screen sperm alongside other body tissues when you're looking for HIV, a sexually transmitted disease. But it's not so logical when it comes to variant Creutzfeldt-Jakob.

Bonus Explainer: What physical characteristics do prospective parents look for in a donor? There's no national organization charged with aggregating such details, but sperm bank managers have noticed a few trends. Married couples seek donors who resemble the husband so that nonbiological father and child will look roughly alike. Single women, on the other hand, often choose conventionally attractive donors. At the [California Cryobank](#), for example, the most popular donors have dirty blond hair, blue-green eyes, a medium build, and dimples.

Got another question for the [Sexplainer](#)?

Explainer thanks Richard Johnson of the Johns Hopkins University School of Medicine, journalist D.T. Max, Karen Riley of the FDA, Claus Rodgaard of Cryos International, and Cappy Rothman of California Cryobank.

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