

Sperm donor passed on sudden death heart defect

October 20 2009, By LINDSEY TANNER , AP Medical Writer

(AP) -- A sperm donor passed on a potentially deadly genetic heart condition to nine of his 24 children, including one who died at age 2 from heart failure, according to a medical journal report.

Two children, both now teenagers, have developed symptoms and are at risk for [sudden cardiac death](#), the report says. It's the second documented instance of a genetic condition being inherited through sperm donation.

The latest case highlights the importance of thoroughly screening sperm donors, according to the report and an editorial published with it in Wednesday's [Journal of the American Medical Association](#).

The San Francisco [sperm bank](#) involved now gives all donors electrocardiogram tests to weed out men with genetic heart problems; the study authors recommend that other sperm banks follow suit.

Voluntary sperm bank guidelines say donors should be required to provide a complete medical history to rule out those with infectious diseases or a family history of inherited diseases. Many also do testing but for genetic diseases that are less common than the heart problem, according to co-author Dr. Barry Maron of the Minneapolis Heart Institute, a leading authority on the condition called hypertrophic cardiomyopathy.

Hypertrophic cardiomyopathy thickens the heart and makes it harder to

pump blood. It affects about one in 500 people; many more likely have the [genetic defect](#) without symptoms, said study co-author Heidi Rehm of Harvard Medical School.

Symptoms can include an [irregular heartbeat](#) and shortness of breath but many cases go undetected until sudden death. The condition is often the culprit when young athletes collapse and die suddenly. Treatment includes medication and an implanted defibrillator to prevent sudden death.

Neither the sperm bank nor the donor were identified. The donor, now 42, had no symptoms of genetic heart disease and no obvious family history when he donated sperm in the early 1990s. His own condition wasn't diagnosed until after a child born through sperm donation was diagnosed. Maron declined to provide more details on the donor's health, citing privacy concerns.

The children are now ages 7 to 16. Nine, including one born to the donor's own wife, tested positive for the heart mutation. One born through sperm donation died; two others have developed symptoms, with one getting a defibrillator. The remaining children are at increased risk for problems, which often don't show up until adolescence, Maron said.

The only other documented case of a disease inherited through [sperm](#) donation involved a rare blood disease.

On the Net: JAMA: <http://jama.ama-assn.org>

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