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Relatives of boys with sexual birth defects not at risk for testicular germ cell cancer

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Boys with the sexual birth defects known as hypospadias and cryptorchidism are at risk for developing testicular germ cell cancer, but their relatives are not, according to a new study published online December 21 in the *Journal of the National Cancer Institute*.

Although hypospadias, the birth defect that involves an abnormally-placed urinary opening, and cryptorchidism, the lack of descension of one or both testes in the scrotal sac, are associated with a risk of developing testicular germ cell cancer, it was unclear whether all three were part of an inheritable dysgenesis syndrome.

To study this relationship, Tine H. Schnack, M.D., of the Department of Epidemiology Research, Statens Serum Institute, in Copenhagen, and colleagues identified over 2 million men born since 1953. They were followed from April 1968 through May 2008. First-, second-, and third-degree relatives were identified in the Danish Family Relations Database; cryptorchidism and hypospadias patients were identified in the Danish Hospital Discharge Register; and testicular germ cell cancer patients were identified in the Danish Cancer Register.

Men with a personal history of cryptorchidism or hypospadias had an increased relative risk of developing testicular germ cell cancer, but their relatives did not. A total of 5,441 patients developed testicular germ cell cancer.

The authors write that "…a family history of hypospadias or

cryptorchidism was not associated with a general increase in the risk of developing [testicular germ cell cancer]. Thus, our data do not support the hypothesis of shared inheritability of the disorders described under testicular dysgenesis syndrome."

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