

Men and women equally transmit genetic risk of MS to their children

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Men and women with multiple sclerosis (MS) equally transmit the genetic risk of the disease to their children, according to a study published June 27, 2007, in the online edition of *Neurology*, the medical journal of the American Academy of Neurology. The research contradicts the results of a recent study, which found affected fathers were more likely than affected mothers to transmit the risk of developing MS to their children.

Researchers studied 3,088 Canadian families with one parent affected with MS. Of the 8,401 children in those families, 798 had MS.

The study found equal transmission of the genetic risk of MS to children with 9.41 percent of fathers transmitting MS to their children compared to 9.76 percent of mothers.

“We also found there were equal numbers of daughters and sons receiving the genetic risk of the disease from their parents,” said study author George Ebers, MD, FMedSci, Action Research Professor of Clinical Neurology at the University of Oxford. “Intriguingly, we also found when half siblings both have MS, there is a clear maternal effect with mothers much more likely to be the common parent.”

Ebers says the findings show no evidence of the Carter effect, which was recently cited in a study that found men with MS were twice as likely to pass the risk of disease on to their children. According to the Carter effect, men are more resistant to MS because they carry a higher genetic

load and thus are more likely to transmit the genetic risk of the disease to their children.

“Our study involved 16 times as many people as the previous published study. It casts further doubt on the widely believed multiple gene mode of inheritance of susceptibility to MS,” said Ebers.

Source: American Academy of Neurology

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