

# Researchers find childhood cancer risk rises with mother's age

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Research from the Masonic Cancer Center, University of Minnesota indicates that a baby born to an older mother may have a slightly increased risk for many of the cancers that occur during childhood.

"Our finding shows that although the absolute risk is low, advancing [maternal age](#) may be a factor and explain why, after other factors are adjusted for, some [children](#) get cancer," said Logan Spector, Ph.D., assistant professor of pediatrics and cancer epidemiology researcher. Spector and Kimberly Johnson, Ph.D., post doctoral fellow in pediatric epidemiology, led the research team on this study. The results are published in the July 2009 issue of the journal *Epidemiology*.

Currently, about 1 in 435 children under the age of 15 in the United States gets cancer. Types of cancers most often affecting children include leukemia, lymphoma, central nervous system tumor, neuroblastoma, Wilms' tumor, [bone cancer](#), and soft tissue sarcoma.

For this population-based case-control study, Spector and Johnson used information from birth registry records in New York, Washington, Minnesota, Texas, and California. The study included the records of 17,672 children in those states diagnosed with cancer at ages 0-14 years between 1980 and 2004 and 57,966 children not diagnosed with cancer.

"We saw that the risk of 7 of the 10 most common childhood cancers increased slightly, about 7-10 percent, with every five-year increase in maternal age," Spector said.

The researchers noted the father's age did not seem to matter once the mother's age was taken into account.

Spector and Johnson say more research needs to be done on why the risk for childhood cancer increases with advancing maternal age. Some of the possible explanations could be age-related changes in hormonal levels during pregnancy and alterations in DNA markings in eggs that can be transmitted to the offspring. "A mechanism of inherited mutation is consistent with our finding that the maternal age effect was strongest among children diagnosed with cancer at the earliest age," Spector said.

He anticipates that such research will take on greater importance as more women delay having children until older. Statistics show the percentage of babies born to women 30 years of age or older in the United States has risen from about 18 percent in 1970 to 37 percent in 2005.

Source: University of Minnesota ([news](#) : [web](#))

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