

Cancer May Pass From Pregnant Mom to Baby

Researchers Say Cancer Cells May Cross Placenta to Fetus and Cause Disease

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Oct. 12, 2009 -- Researchers have found new evidence that it's possible for a mother with [cancer](#) to pass the disease on to her unborn child.

A case report shows that cancer cells in an [infant](#) genetically match those from her mother; the mother was diagnosed with [leukemia](#) shortly after a normal full-term delivery.

Researchers say rare cases of mothers' cancer cells in infants have been reported over the last 100 years, which has suggested the possibility that cancer cells may be passed from mother to infant. But until now it had not been confirmed genetically.

In the case report, published in the *Proceedings of the National Academy of Sciences*, researchers used genetic tracking to prove that the cancer cells had been transmitted from mother to infant.

The mother was a 28-year-old woman who was diagnosed with leukemia shortly after [giving birth](#); her 11-month-old daughter developed a similar type of cancer.

Genetic testing showed the infant's cancer cells shared a unique genetic match to her mother's. Special markers in the cancer cells of the infant confirmed they were of maternal origin.

Additional testing showed that the infant's cancer cells lacked a portion of genetic material that would have flagged them as intruder cells and targeted them for elimination by her immune system.

Researcher Takeshi Isoda of Tokyo Medical and Dental University and colleagues say this genetic trait likely enabled the mother's cancer cells to evade the infant's protective placental barrier.