

# Could IVF raise children's odds for blood cancer?

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(HealthDay)—Children conceived through in vitro fertilization (IVF) might have a slightly increased risk of developing blood cancer, a new study suggests.

Children born via IVF had a 67 percent [increased risk](#) of leukemia and a more than tripled risk of Hodgkin's lymphoma compared to children conceived naturally, researchers found in an analysis of more than 1.6 million children in Norway.

Parents shouldn't panic, however. The risk of childhood cancer is still very small, even after factoring in the results of this study, said lead author Dr. Marte Myhre Reigstad. She is a researcher with the Norwegian National Advisory Unit on Women's Health at Oslo University Hospital.

"For example, in Norway, the risk of being diagnosed with leukemia within the first 10 years of life is 0.5 in 1,000," Reigstad said. "A risk increase

of such magnitude as found in our study would amount to a risk of 0.8 in 1,000. So for children conceived by assisted reproductive technology, there is still only a very small chance of developing cancer."

In the study, published online Feb. 4 in the journal *Pediatrics*, researchers reviewed medical data for all children born in Norway between 1984 and 2011. Of the more than 1.6 million children, about 25,800 were conceived through different assisted reproductive technology procedures.

Researchers did not find any significant increase in IVF kids' overall risk of cancer, other than leukemia and Hodgkin's lymphoma, which are cancers that affect blood cells.

However, the statistics behind these risks are based on very small numbers of sick kids, said Susan Amirian, an assistant professor with the Baylor College of Medicine's Duncan Cancer Center in Houston.

For example, only 17 cases of leukemia and three cases of Hodgkin's lymphoma were reported among the IVF kids in the sample, said Amirian, co-author of an accompanying editorial in the journal.

She called the results based on those numbers "borderline statistically significant."

"We need to be extra cautious interpreting that number, and we need a lot more studies that confirm that association before we can say there's a true relationship there," Amirian said.

There are a number of possible reasons why IVF kids might be at higher risk for some cancers, said Amirian and her editorial co-author, Melissa Bondy, also of Baylor's Duncan Cancer Center.

Mothers who use IVF to conceive often do so later in life, and previous studies have shown that kids of

older mothers have an increased risk for childhood cancers, Bondy said.

Parental genetics might also play a factor, in that whatever has contributed to the parents' infertility might also increase their children's [cancer](#) risk, Bondy added.

But Bondy and Amirian agreed that the study does not warrant "sounding any alarms."

"This is an implication there may be something going on," Bondy said. "We need to investigate it, but we don't want to alarm anybody and we don't want to make any recommendations as of right now."

Reigstad concurred, adding that her study should not deter hopeful parents from using assisted reproductive technology.

"I think this should not dissuade couples from being treated with IVF, but medical researchers and care providers must keep these findings in mind, and we must keep observing these [children](#) as they grow older," Reigstad said.

Worldwide, more than 5 million babies have been conceived through assisted [reproductive technology](#), such as IVF, according to background notes with the study.

**More information:** For more on assisted reproductive technology, visit the [U.S. Centers for Disease Control and Prevention](#).

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