

Women whose first pregnancy was ectopic have fewer children

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Women whose first pregnancy is ectopic are likely to have fewer children in the following 20-30 years than women whose first pregnancy ends in a delivery, miscarriage or abortion, according to results from a study of nearly 3,000 women in Denmark. In addition, these women have a five-fold increased risk of a subsequent ectopic pregnancy.

The first study to look at long-term reproductive outcomes in women whose first pregnancy was ectopic is published online today (Thursday) in Europe's leading reproductive [medicine journal Human Reproduction](#).

Ectopic pregnancies are pregnancies where a [fertilised egg](#) implants somewhere other than the lining of the [womb](#); often it's in one of the [Fallopian tubes](#). Approximately one per cent of pregnancies are ectopic, and they are never viable; often the eggs die, sometimes a drug called [methotrexate](#) is given so that the pregnancy tissue is absorbed into the woman's body, and sometimes surgery is needed.

Although it is already known that a previous [ectopic pregnancy](#) can increase the risk of a subsequent one, most studies have been small and with short follow-up. "We found no controlled study assessing long-term reproductive [prognosis](#) in women whose first pregnancy is ectopic," write the authors of the current study.

The researchers collected data from four Danish registries covering the period 1977-2009. They found 2,917 women whose first pregnancy was ectopic between 1977-1982 and who, except for those who died or

emigrated, were followed to the end of 2009 or for an average of 23 years.

These women were matched with other women of the same age whose first pregnancy resulted in a delivery, miscarriage or [abortion](#). They were also compared with a fourth group of women who had no recorded pregnancy in the year of matching.

Dr Line Lund Kårhus (MD), a research student in the Gynaecological Clinic at the Rigshospitalet in Copenhagen, Denmark, said: "We found that the group of women who had a first ectopic pregnancy had the lowest delivery rate and total number of pregnancies over the following 20-30 years when compared with the other groups, and also lower rates of miscarriages and abortions. They had a 4.7-10-fold increased risk of further ectopic pregnancies."

Women who had had an ectopic pregnancy had the lowest long-term rate of subsequent deliveries of 69 per 100 women, compared with 126 per 100 among women who had a first miscarriage, 77 per 100 among women who had a first abortion, 73 per 100 among women whose first pregnancy ended in a delivery, and 101 per 100 among the women who were not pregnant in the year the women were matched with each other.

Compared to women who had a first miscarriage, the number of subsequent deliveries among the women who had a first ectopic pregnancy was reduced by nearly a half (45%). When compared with women whose first pregnancy resulted in a delivery, there was no statistically significant difference: the women in the ectopic pregnancy group had a slightly reduced (5%) number of subsequent pregnancies, ending up with approximately one child less during the follow-up period.

"It is not surprising that there was little difference between the women who had an ectopic pregnancy and women who delivered a baby from

their first pregnancy," said Dr Kårhus. "We think women with a first ectopic pregnancy have to try harder to achieve the number of deliveries they wish. However, their attempts are counterbalanced by the fact they are less fertile, and, therefore, ultimately they end up with one less birth."

When compared to women whose first pregnancy ended in an induced abortion or who were not pregnant in the year the different groups of women were matched, the number of subsequent deliveries among women in the ectopic pregnancy group was reduced by 11% and 31% respectively.

"These results indicate that fertility is compromised in women whose first pregnancy is ectopic and even after 30 years they have significantly fewer children compared with other women," she said. "We had expected that, over time, women would compensate for their reduced fertility by making more attempts to become pregnant. However, our results demonstrate that these extra attempts at pregnancy do not result in the same number of babies for women whose first pregnancy was ectopic compared with other women."

The study also showed that women in the ectopic pregnancy group were less likely to have a subsequent miscarriage or an induced abortion – a 54% and 28% reduced risk respectively – when compared with women whose first pregnancy ended in miscarriage.

The researchers say that it is possible that better assisted reproductive techniques that have been developed in recent years could improve the long-term delivery rates for [women](#) with ectopic pregnancies, and this is under current investigation.

More information: "Long-term reproductive outcomes in women whose first pregnancy is ectopic: a national controlled follow-up study",

by Line Lund Kårhus, Pia Egerup, Charlotte Wessel Skovlund, and
Øjvind Lidegaard. Human Reproduction journal.

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