

# Nordic study shows marginally higher but overall low risk of stillbirth in ART children

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A research group from the Nordic countries (the MART group -- Morbidity in ART) found a marginally higher but overall still low risk of stillbirth among children conceived after assisted reproduction treatment (ART) compared to naturally conceived children, the 27th Annual Meeting of the European Society of Human Reproduction and Embryology heard Wednesday.

The group looked at 60,650 singletons in a common Nordic database from ART registers in Denmark, Finland, Norway and Sweden and compared these to a control group of 360,022 naturally conceived (NC) singletons. In both groups 0.4 % of singletons were stillborn, with a definition of [stillbirth](#) as a dead child after 22 weeks of gestation. After having been matched with the control group regarding mother's parity and year of birth, the overall risk of stillbirth was found to be marginally higher (1.1 fold) in ART children after adjusting for factors such as [maternal age](#) and the child's sex.

"Although the difference in risk of stillbirth is significant between the two groups and the risk is marginally higher with an overrepresentation of 8 per 1,000 pregnancies for [singleton](#) ART pregnancies, the overall risk of stillbirth is still low," said Anna-Karina Aaris Henningsen, leading author of the study from Rigshospitalet University Hospital of Copenhagen. "This means that the individual woman need not be concerned about the risk of stillbirth during [pregnancy](#)."

When analysing the stillbirth risk before and after term, no difference

was found after 40 weeks of gestation between ART children and their naturally conceived peers. This was also the case when comparing the two cohorts after 37 weeks of gestation. However, until gestational week 40, the group found a 1.2 fold higher risk of stillbirth for ART singletons.

"We believe the difference in risk of stillbirth between ART and NC children seems to occur before 37 weeks of gestation," said Dr. Aaris Henningsen. "It is likely, that some of the difference in risk of stillbirth is related to parental factors in the subfertile mother or father."

When the researchers assessed the risk of total perinatal death (risk of stillbirth and risk of perinatal death until one year of age), children born after ART showed a 1.4 fold increased risk compared to naturally conceived babies. This remained 1.2 fold higher after adjusting for confounding factors and can probably be partly explained by the higher risk of preterm birth among ART children.

"Very few European, non-Nordic, studies exist on stillbirth rates and are mostly based on small numbers," explained Dr. Aaris Henningsen. "Our results come from the largest database on ART children worldwide. The MART group is currently looking at multiple neonatal outcomes including the risk of [perinatal death](#) in both singletons and twins and is hoping to have additional data in the near future."

Provided by European Society of Human Reproduction and Embryology

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