

# Test tube children develop mentally normal

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Whether a child is conceived naturally or in a Petri dish in an incubator has no bearing at all on the child's mental health. However, researchers have identified a small but increased risk of developing a mental disorder such as autism, ADHD or behavioural problems in children whose mothers only received medical treatment to stimulate ovulation and egg development before insemination.

This is the result of a new research project from Aarhus University and Aarhus University Hospital, which has compared the risk of [mental illness](#) in artificially fertilised and naturally conceived children. The study will be published today in the highly acclaimed *British Medical Journal (BMJ)*.

In the project, researchers compared children aged up to 17 years from three different groups: naturally conceived children, children of mothers who only received medical treatment to become pregnant, and a group of children conceived using the so-called test-tube method, where fertilisation takes place outside the uterus.

The general conclusion of the study is that test-tube babies are generally just as mentally and physically healthy as naturally conceived children. On the other hand, the researchers found a measurable increase in the occurrence of [mental disorders](#) in children whose mothers received help to become pregnant through insemination treatment in the form of hormone stimulation to promote egg development and ovulation. Yet there is no obvious explanation for these results, according to one of the researchers behind the study, Bjørn Bay, MD and PhD fellow at Aarhus

University and Aarhus University Hospital.

"In the study, we have taken account of the mother's age, education, smoking habits, mental history and other factors which may otherwise influence the risk. We can also discount the various types of fertility drugs which are given prior to becoming pregnant. If we suspected that the drugs were having an impact on the children's mental development, the effect would also be traceable in the group of test-tube babies – and it's not," says Bjørn Bay, adding that the explanation must be attributable to as yet unknown factors among childless couples.

"Beyond well-known factors such as age and smoking, it is important that we take a closer look at the differences between women who easily become pregnant and women who find it difficult.

Until then, the message from the researchers is that parents who have been helped by science to start a family have no grounds for concern. Even though the number of children with mental problems is on the increase, the risk is still only very small," says Bjørn Bay.

"At the end of the day, there are very few cases. The key message is that by far the majority of children develop normally, and that we see no reason to intervene in the treatment and the methods currently being used," says Bjørn Bay.

## **Facts:**

- An increasing number of couples are experiencing problems with involuntary childlessness, and more and more of them are seeking [medical treatment](#). Here, the techniques range from [insemination](#) and mild fertility drugs to promote [egg development](#) and [ovulation](#) to test-tube treatment, where the woman is given fertility drugs, and selected eggs and sperm meet

in a Petri dish and are then cultivated in an [incubator](#) until they are ready to be transferred to the woman's uterus.

- Denmark has highest proportion of children worldwide born to mothers who have received fertility treatment. Almost 10% of children born each year are conceived after one or other form of treatment.
- The results are based on register-based studies of almost 600,000 Danish children born in the period 1995-2003 and subsequently followed, making it one of the biggest and longest studies within this area in the world.
- The research has been conducted by doctors, psychologists and researchers collaborating at three universities in Denmark.

Provided by Aarhus University

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