

Australians born through assisted reproduction technology are as healthy as other Aussies

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Australians born through assisted reproduction are as healthy as people conceived naturally, according to a new study led by the Murdoch Children's Research Institute.

The research, published in the latest *Fertility and Sterility* journal, is the largest ever population-based study comparing the health of adults conceived through assisted reproduction technology (IVF and GIFT) with the health of the general population.

Lead author Professor Jane Halliday of Australia's largest child health institute said researchers looked at 193 people aged between 22 to 35 years born using assisted reproduction technology.

"The study showed there is no evidence of increased vascular or cardiometabolic risk such as heart disease and diabetes, growth or respiratory or well-being problems in this assisted reproduction technology group, compared with a non-assisted reproduction technology group recruited from the same Victorian population," she said.

But Prof Halliday said the adults born through one type of assisted reproduction technology, in vitro-fertilisation, did better than the control group on many quality of life indicators.

They felt better about their finances, safety, environment and housing than the [control group](#).

"This suggests that they are relatively socio-economically advantaged," Prof Halliday said.

"Also their psychosocial adjustment may be positively influence by being born to parents who seek IVF to achieve parenthood."

The researchers used a series of physical assessments and questionnaires

on the 193 adults conceived through assisted reproduction technology and 86 controls of the same age conceived naturally. (The participants had an average age of 27 years.)

The participants were among the first Australians to be born through assisted reproduction technology and some of the first assisted reproduction babies in the world.

Assessments included measuring carotid artery thickness, blood pressure, overall body dimensions, respiratory function, lipid profiles, free fatty acids, blood glucose and insulin levels.

Quality of life, demographics and self-reported health status were assessed by questionnaire. There were no major differences in these clinical assessments even when taking into account factors such as birth weight differences and a quality of life measure which was higher in the assisted reproduction technology group.

One minor difference was in diastolic [blood pressure](#) which was slightly lower in assisted reproduction technology males than in non-assisted reproduction technology males.

While the assisted reproduction technology group had a higher self-reported prevalence of ever having asthma or breathing problems, the physical respiratory assessments found no significant differences between the two groups.

Prof Halliday said since the first Australian IVF baby was born in 1980, more than 200,000 babies have been born with the help of assisted reproduction technology.

"One in every 25 Australian babies are now born via assisted [reproduction technology](#), that means there is one in every classroom,"

Prof Halliday said.

"Given the strong uptake of assisted [reproduction](#) technology, studies into the technology's potential long-term health outcomes are vital."

Co-author Associate Professor John McBain, from Melbourne IVF and The Royal Women's Hospital, said having worked in the field since before an IVF baby was born, it is enormously satisfying that our hard work and our patients' trusting participation in these early days have been rewarded by the positive findings.

Monash IVF Group Professor and co-author Rob McLachlan said Australia has a pioneering role in IVF and we have a compelling need and responsibility to understand the health of people born through assisted reproductive technologies throughout their lives.

While the largest of its type in the world, Prof Halliday said the study was limited by the lower than expected participation rate but was confident the sample was representative of all the potential participants.

More information: Health of adults aged 22 to 35 years conceived by assisted reproductive technology, *Fertility and Sterility*. [DOI: 10.1016/j.fertnstert.2019.03.001](#)

Provided by Murdoch Children's Research Institute

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