

Nanjing Medical University Study on Children Conceived via Assisted Reproduction

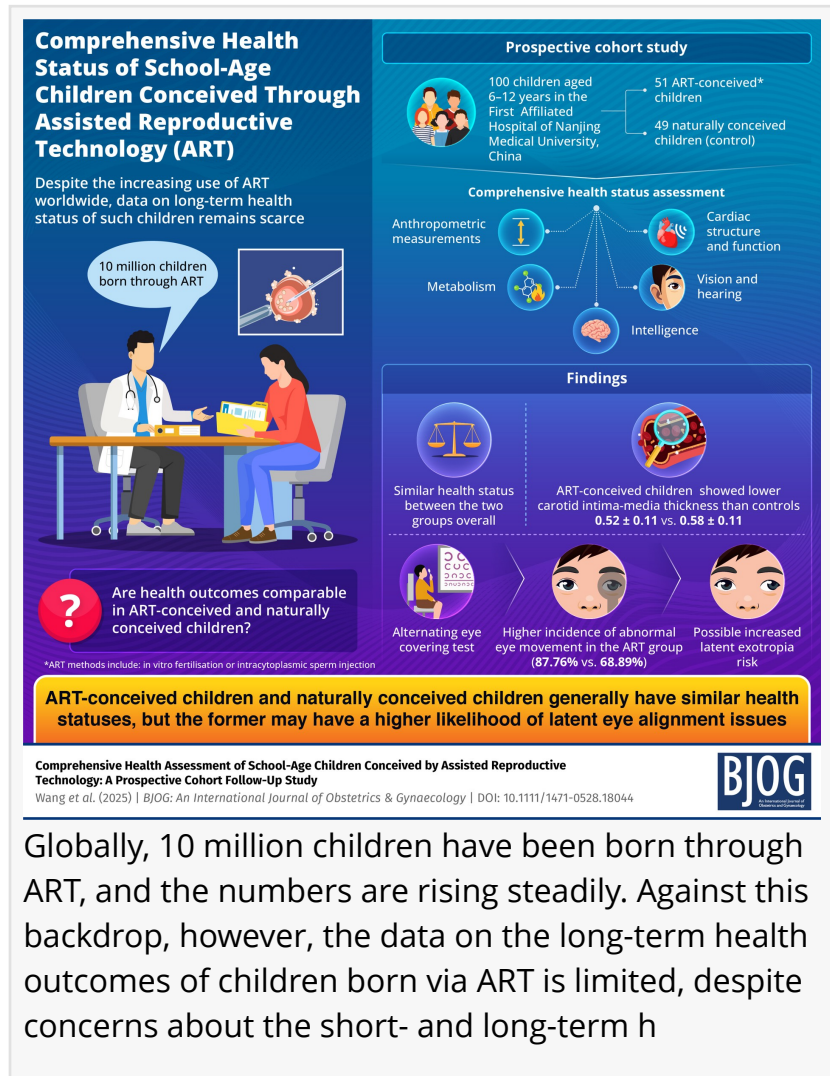
Researchers conduct a comprehensive health assessment of school-age children to evaluate potential long-term health risks

NANJING, JIANGSU, CHINA, September 4, 2026 /EINPresswire.com/ -- The birth of Louise Brown in 1978, the world's first baby conceived through assisted reproductive technology (ART), was a major breakthrough that reshaped the field of reproductive medicine. Today, over 10 million children worldwide have been born through ART procedures, and experts estimate that around one in every 12 babies in Europe and one in every 20 in the USA are conceived artificially. As these numbers continue to rise, so does our responsibility to understand the impact on the long-term health of children born using these techniques.

The short-term risks associated with ART are reasonably well documented.

Children born through ART procedures have a higher risk of premature birth, low birth weight, and certain birth defects compared to naturally conceived peers. On the other hand, the long-term picture remains less clear, and study results have often been contradictory. Part of the problem lies in the fact that most research has focused on one aspect of the body at a time, such as the heart, metabolism, or brain development, rather than looking at the children's overall health. Now that a large number of ART-conceived children have reached school age, it is imperative to garner a broader understanding of these health risks.

To address this knowledge gap, a research team led by Associate Professor Yan Meng from The



Globally, 10 million children have been born through ART, and the numbers are rising steadily. Against this backdrop, however, the data on the long-term health outcomes of children born via ART is limited, despite concerns about the short- and long-term h

First Affiliated Hospital of Nanjing Medical University, China, conducted a comprehensive, multisystem health assessment of school-age children conceived through ART. Their study compared 51 ART-conceived children with 49 naturally conceived children, all aged 6 to 12 years. The paper was made available online on January 8, 2025, and published in Volume 132, Issue S2 of [BJOG: An International Journal of Obstetrics & Gynaecology](#) on 15 April 2025.

The multidisciplinary team assessed each child across a wide range of health measures, all within a single visit. “The major strength of our study lies in the collaborative effort of multiple departments to conduct comprehensive multisystem health assessments of children, including the evaluation of anthropometry, glucose-lipid metabolism, cardiac structure and function, intelligence, behavior, vision and hearing,” remarks Dr. Meng. All examiners were kept unaware of how each child had been conceived to avoid any bias in their assessments.

Overall, the results were largely reassuring. ART-conceived children showed similar height, weight, blood pressure, blood glucose, and cholesterol levels compared to their naturally conceived peers. Heart structure and function, assessed in detail using echocardiography (ultrasound), were also comparable between the two groups. This was a notable finding, given that earlier studies, including previous work by this team, had found subtle cardiac differences in younger ART-conceived children. Intelligence, behavior, and hearing were similar across both groups.

The researchers highlighted two differences that stood out. First, ART-conceived children had slightly lower carotid intima-media thickness, which is the thickness of the inner walls of the neck arteries. Although this measure is sometimes used as a marker of cardiovascular risk, the clinical significance of this lower value in ART-conceived children remains unclear. Second, and more strikingly, ART-conceived children showed a significantly higher rate of abnormal eye movements in a standard eye alignment test (87.8% vs. 68.9%). While most cases were not clinically severe, this suggests a potentially greater likelihood of latent exotropia, a condition in which the eyes tend to drift outward when not actively focused. This highlights the need for regular eye check-ups in ART-conceived children, which is an area that has received very little scientific attention until now.

The team emphasizes the importance of conducting larger, longer-term studies across different ART techniques to continue building on these findings. “Our study underscores the importance of regular comprehensive health screening and early detection of abnormalities in ART-conceived children at different ages. Changes associated with ART may be subclinical, without symptoms or signs of disease, which may indicate potential mechanisms underlying an increased risk of disease later in life,” concludes Dr. Meng.

Overall, the findings provide reassuring evidence that ART-conceived children are generally healthy, while highlighting the importance of continued long-term monitoring.

Reference

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About Nanjing Medical University

Nanjing Medical University (NMU) is a public medical university in Nanjing, Jiangsu, China. Founded in 1934 as the Jiangsu Provincial College of Health Policy and Management in Zhenjiang, it relocated to Nanjing in 1957 and was officially designated as Nanjing Medical University in 1993. NMU is jointly constructed by the Ministry of Education, the National Health Commission, and the Jiangsu Provincial People's Government, and was selected for China's Double First-Class initiative in 2022. NMU enrolls more than 20,000 students across undergraduate, master's, doctoral, and postdoctoral programs, supported by a faculty of nearly 2,000 across three campuses. With 19 colleges, over 40 key specialties, and collaborations with multiple affiliated hospitals, the university integrates medical education, research, and clinical practice, with a focus on building world-class disciplines and contributing to a global community dedicated to people's health and well-being.

Website: <https://english.njmu.edu.cn/>

About Associate Professor Yan Meng from The First Affiliated Hospital of Nanjing Medical University

Dr. Yan Meng is currently affiliated with the State Key Laboratory of Reproductive Medicine and Offspring Health, Clinical Center of Reproductive Medicine at The First Affiliated Hospital of Nanjing Medical University. She specializes in reproductive biology, reproductive medicine, and clinical research.

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