

# Routine prenatal ultrasound can identify early signs of autism

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A routine prenatal ultrasound in the second trimester can identify early signs of Autism Spectrum Disorder (ASD), a new study by Ben-Gurion University of the Negev and Soroka Medical Center has found.

Researchers from the Azrieli National Centre for Autism and Neurodevelopment Research published their findings recently in the journal *Brain*.

The researchers examined data from hundreds of prenatal ultrasound scans from the fetal anatomy survey conducted during mid-gestation. They found anomalies in the heart, kidneys, and head in 30% of fetuses who later developed ASD, a three times higher rate than was found in typically developing fetuses from the general population and twice as high as their typically developing siblings.

Anomalies were detected more often in girls than in boys and the severity of the anomalies was also linked to the subsequent severity of ASD.

This study and others will be discussed at the Israeli Meeting for Autism Research to be held February 15-16 at BGU.

Prof. Idan Menashe, a member of the Centre and the Department of Public Health in the Faculty of Health Sciences, led the research with his MD/Ph.D. student Ohad Regev.

"Doctors can use these signs, discernable during a routine ultrasound, to evaluate the probability of the child being born with ASD," says Prof. Menashe, "Previous studies have shown that children born with congenital diseases, primarily those involving the heart and kidneys, had a higher chance of developing ASD. Our findings suggest that certain types of ASD that involve other organ anomalies, begin and can be detected in utero."

A previous study of the Centre found [early diagnosis](#) and treatment increased social ability by three times as much. Prenatal diagnosis could mean a course of treatment from birth instead of waiting until age 2 or 3

or even later.

**More information:** Ohad Regev et al, Association between ultrasonography foetal anomalies and autism spectrum disorder, *Brain* (2022). [DOI: 10.1093/brain/awac008](https://doi.org/10.1093/brain/awac008)

Provided by Ben-Gurion University of the Negev

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