

Adult IQ of very premature babies can be predicted by the age of two

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Dieter Wolke. Credit: University of Warwick

Research from the University of Warwick indicates that the IQ of adults born very premature or of very low birth weight can be predicted when they are just a toddler.

The study was led by psychology researcher Professor Dieter Wolke.

Previous studies have linked very [premature birth](#) and very [low birth weight](#) with impaired cognitive function from childhood and throughout

adulthood. However until now it wasn't clear how soon adult IQ can be predicted in these children

Professor Wolke, who based at the department of psychology and Warwick Medical School, University of Warwick, said: "We believe this is the first time a research paper has looked into the prediction of the IQ of [adults](#) over the age of 26 who were born very premature or with very low birth weight.

"The results indicate that assessing two year olds who were born very preterm or very underweight and will provide a reasonably good prediction to what their adult IQ will be."

In contrast, the research results found that the IQ of adults who were born full-term couldn't be accurately predicted till the age of six.

Across all assessments within the study very premature and very low birth weight children and adults had lower IQ scores than those born full-term, even when individuals with [severe cognitive impairment](#) were excluded from the comparisons.

The [research paper](#) entitled "Preterm Children's Stability of Cognitive Function into Adulthood: A Prospective Cohort Study" has been published by the American Academy of Pediatrics' international journal *Pediatrics*, the most-cited in its field.

The study was conducted in southern Bavaria, Germany and followed children from birth into adulthood who were born between 1985-86. Called the Bavarian Longitudinal Study data gained on cognitive function were assessed with developmental and intelligence tests (IQ) at five and 20 months and at four, six, eight and 26 years of age.

Two-hundred-and-sixty babies born either very premature (before 32

weeks) or with very low birth weight (fewer than 1.5kgs) were compared with 229 babies who born full-term. Their results were not sex-specific, related to income or education, and were compared to the control group of adults who were born healthy in the same obstetric wards.

Professor Wolke added: "Some children born very premature or with very low [birth weight](#) score low on cognitive tests but beat the odds and improve into adulthood".

"However many with persistent problems can be detected in the second year of life. Early identification of cognitive problems in these children may help to plan specialised therapeutic and educational interventions to help them and their families."

Prof. Wolke is based at the University of Warwick's Department of Psychology and at Warwick Medical School which conducts research into areas including epidemiology, trials of complex interventions at individual, family and community levels, and understanding socio-cultural and environmental determinants of mental health and wellbeing.

Provided by University of Warwick

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