

How do those born preterm at very low birth weight fare as adults?

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Credit: NTNU

The Finnish Institute for Health and Welfare (THL) is investigating the health and well-being of adults who were born preterm at very low birth weight in a series of studies that are unique worldwide.

The study, initiated 15 years ago, will be continued when the same individuals, now aged between 35 and 40, are invited to participate.

The information obtained from the study will help with the development of the care and monitoring of premature babies and the reduction of any related [health](#) risks for adults.

The study involves the participation of those who were treated at birth between 1978 and 1985 in the infant intensive care ward at the Helsinki University Hospital and who were born either preterm at very [low birth weight](#) or, as a control group, were born at [full term](#).

The health and well-being of these individuals as adults has been studied since 2004-2005.

Research is carried out through international cooperation

The follow-up study is done in cooperation with an international partner, the Department of Medical Science at the Norwegian University of Science and Technology (NTNU). In Norway, a similar study is simultaneously being carried out using the same methodology as the Finnish study. The researchers will work together to process the data collected in the Finnish and Norwegian studies, which will improve the reliability and precision of the results.

The research includes a detailed health check-up and several questionnaire forms. The individuals' health will be assessed using different indicators such as their body fat percentage and the results of a glucose tolerance test and a pulmonary function test.

Also, their psychological well-being will be studied using different tasks and questionnaire forms. A new component of the study is a detailed eye

check-up and study of their motor skills.

In addition to NTNU, this study involves cooperation with the Helsinki and Uusimaa Hospital District's Department of Eye Diseases, the University of Helsinki's Department of Psychology, and the University of Oulu's Faculty of Medicine.

"We aim to make participation in the research as easy and rewarding as possible. The participants receive for themselves the results of the measurements and check-ups, and thus acquire a broad overall picture of their state of health. The adults who were born preterm at very low birth [weight](#) have participated actively in the earlier studies, and we hope that as many as possible will participate this time as well," says Medical Researcher and Eye Disease Specialist Maarit Kulmala.

Earlier studies found health differences between those born at full term and those born preterm at very low birth weight

Infants with a birth weight of 1.5kg or less are classified as having very low birth weight. The systematic intensive care of preterm infants at very low birth weight began in the 1970s.

The majority of those born preterm at very low birth weight consider themselves to be healthy and live a normal life. Slightly less than 10% have some kind of illness or disability which is related to being born preterm and which affects their daily life and capacity to work.

In earlier studies, it was observed that there were health differences at young adulthood between those born full term and those born preterm at very low birth weight. Those born preterm had, for example, a higher incidence of risk factors related to cardiovascular diseases, such as high

blood pressure.

They also clearly engaged less in physical exercise than those born full term. Furthermore, they experienced slightly more learning difficulties, depression and anxiety disorders. On the other hand, they fared better than those born full term in some areas, showing lower levels of allergic reactions, behavioural disorders and excessive alcohol consumption.

"We previously studied those born preterm during their young adulthood, aged around 20 to 25, at which point the body's operating capacity is at its peak. Now we will be studying how their health and operating capacity develop with age: do the differences observed between those born [preterm](#) at very low [birth](#) weight and those born full term increase over time or even out? This follow-up study for later adulthood, those aged between 35 and 40, is the first of its kind in the world," explains Professor Eero Kajantie, who is in charge of the study and also heads up the Adults Born Preterm International Collaboration (APIC).

Provided by National Institute for Health and Welfare

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