

Triplets with extremely low birth weight face high risks

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Among the smallest preterm infants, those born as triplets are at greater risk than single born infants or twins of dying or developing a disability before their second birthday, according a study by a research network of the National Institutes of Health.

The analysis of more than 11,000 [infants](#) revealed that [triplets](#) were nearly twice as likely as single born infants, and about one and a third times as likely as were twins to die or develop a disability.

"Triplet births have a high rate of complications because triplets tend to be born very early, and are smaller than most other categories of infants," said Rosemary Higgins, M.D., of the [Pregnancy](#) and Perinatology Branch at the NIH's Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD). "Our study found that even when you compare them to single born infants and twins of comparable size and gestational age, they still face greater risks."

The study was conducted in the 19 newborn intensive care units making up the NICHD Neonatal Research Network.

"The findings lend new urgency to the development of measures to prolong pregnancy for women carrying multiple fetuses," said the study's first author, Rajan Wadhawan, M.D., of All Children's Hospital in St. Petersburg, Fla. The research was published online in *Pediatrics*.

Extremely low [birth weight](#) (ELBW) infants are the smallest category of

preterm infant. ELBW infants weigh between 14 ounces and 2.2 pounds at birth. A previous NICHD Neonatal Research Network Study found that ELBW twins have a higher risk of neurodevelopmental issues — problems affecting the nervous system — than do ELBW singletons. However, the results of previous studies on whether ELBW triplets faced greater risks than ELBW twins were mixed, with a few studies showing ELBW triplets fared better than ELBW twins.

The researchers stated that there has been a sharp increase in the number of multiple births. Citing a report by the Centers for Disease Control and Prevention, the researchers noted that there was a more than 400 percent increase between 1980 and 1997 in births of triplets and other higher order multiples (three or more offspring in one birth). By comparison, births of twins increased more than 50 percent during the same period. Triplets and other higher order multiples are more than 30 times more likely to be low birth weight than are singletons. The study authors added that the CDC report attributed the increase in multiple births to assisted reproductive technology and fertility drugs. However, for the current study, the researchers were not able to obtain information on whether the women in the study had undergone fertility treatments.

The researchers analyzed the medical records of nearly 11,000 ELBW infants born between 1996 and 2005 in the NICHD Neonatal Research Network centers. They compared the survival rates and health status of triplets and other higher order multiple births (quadruplets or more) between 18 and 22 months old with the survival rates and health status of twins and of singletons the same age.

The researchers compiled the results of their analysis in terms of a combined primary outcome. This primary outcome took into account two possibilities: whether an infant either died in the first or second year of life or else had a neurodevelopmental impairment — any of a number of conditions affecting the nervous system. These included cerebral

palsy, blindness, hearing loss or low scores on tests of infant mental and motor development.

The researchers found that at the age of 18 to 22 months, the ELBW triplets and higher order multiples had 1.7 times the risk for death or neurodevelopmental impairment as ELBW singletons, and 1.27 times the risk as ELBW twins.

ELBW triplets and higher order multiples were twice as likely as ELBW singletons and about 1.4 times as likely as ELBW [twins](#) to have a neurodevelopment impairment.

Provided by National Institutes of Health

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