

Children born prematurely face up to a 19 times greater risk of retinal detachment later in life

November 7 2013

Children born extremely prematurely have up to a 19 times greater risk of retinal detachment later in life than peers born at term, according to a Swedish study published this month in *Ophthalmology*, the journal of the American Academy of Ophthalmology. In the first large population-based, long-term investigation of the association between preterm birth and later retinal detachment, the research determined that birth before 32 weeks is associated with increased risks of retinal detachment in childhood, adolescence and young adult life. The study's findings indicate the need for ophthalmologic follow-up in children and adults born extremely and very prematurely. The United States has the sixth largest number of premature births, with more than 500,000 premature babies born each year.

The researchers used Swedish nationwide population registries of more than three million births from 1973 to 2008 to identify subjects born prematurely (at less than 37 weeks of gestation), who were then separated into two groups: those born between 1973 and 1986, at which point a national retinopathy of prematurity (ROP) screening program was established, and those born between 1987 and 2008. ROP is a condition that causes [abnormal blood vessels](#) to grow in the retina (back of the eye) and can cause [retinal detachment](#), which is a major cause of childhood blindness globally. A detached retina may lead to vision loss and even blindness unless it is treated with surgery. Although the connection between retinal detachment and preterm births has been

noted in smaller studies, this is the first study to analyze a population of this size.

For those born extremely prematurely (less than 28 weeks of gestation) between 1973 and 1986, the researchers found the risk of retinal detachment was 19 times higher than peers born at term. Those born extremely prematurely between 1987 and 2008 had a nine-fold increase in risk after adjustment for potential cofounders.

Those born very prematurely (28 to 31 weeks of gestation) between 1973 and 1986 had a four-fold increased risk and those born very prematurely between 1987 and 2008 had a three-fold greater risk than those born at term. Additionally, the researchers found that moderately [preterm birth](#) (32 to 36 weeks of gestation) was not associated with an increased risk of retinal detachment.

"We may just be seeing the tip of the iceberg of late ophthalmic complications after preterm birth," said Anna-Karin Edstedt Bonamy, M.D., Ph.D., pediatrician at Karolinska Institutet in Stockholm and the study's lead researcher. "Not only does the risk of retinal detachment increase with age, but there has also been an increase in survival among people born prematurely since the 1970s. This provides opportunities for future research to address if the increased risk persists among those born prematurely as they age."

Clinical studies and care series indicate that individuals born prematurely may be at lifelong risk for ophthalmologic complications other than ROP. This includes an increased risk of subnormal visual acuity, visual perceptual problems, strabismus, refractive errors (particularly high myopia) and reduced contrast sensitivity and visual fields.

The American Academy of Pediatrics, along with the American Academy of Ophthalmology, American Association for Pediatric

Ophthalmology and Strabismus and the American Association of Certified Orthoptists recommend screening for ROP in infants born at less than 30 weeks of gestation or those with a birth weight of less than 1500 grams (or those with a birth weight of less than 2000 grams with an unstable clinical course).

Although follow-up guidelines vary from country to country, the researchers recommend that individuals who have been treated for ROP in the neonatal period should continue follow up on a yearly basis.

Provided by American Academy of Ophthalmology

Citation: Children born prematurely face up to a 19 times greater risk of retinal detachment later in life (2013, November 7) retrieved 24 April 2024 from <https://medicalxpress.com/news/2013-11-children-born-prematurely-greater-retinal.html>

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