# Rod, cone function down for children born extremely preterm

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(HealthDay)—Children born extremely preterm have reduced rod and

cone function compared with children born at term, according to a study published online June 29 in *JAMA Ophthalmology*.

Anna E.C. Molnar, M.D., Ph.D., from Uppsala University in Sweden, and colleagues compared retinal function in 6.5-year-old children born extremely preterm (52 children) and children born at term (45 children). Retinal function was assessed using full-field electroretinographic (ffERG) recordings.

The researchers found that, compared with the group born at term, the preterm group had significantly lower amplitudes of the combined rod and cone responses (a-wave of the dark-adapted electroretinographic [ERG] protocol of 3.0 and 12.0 candelas [cd]/s/$m^2$: mean differences, −48.9 and −55.7 µV, respectively) and of the isolated cone response (30-Hz Flicker ERG: mean difference, −12.1 µV). The preterm group also had longer implicit time of the combined rod and cone responses (a-wave of the dark-adapted ERG protocol of 12.0 cd/s/$m^2$: mean difference, 1.2 ms) and isolated cone responses (30-Hz flicker ERG: mean difference, 1.2 ms), compared with the group born at term. In the preterm group there was no correlation between ffERG recordings and gestational age or retinopathy of prematurity.

"There was no association with retinopathy of prematurity in the preterm group, which suggests that being born extremely preterm may be one of the main reasons for a general retinal dysfunction," the authors write.

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