

## Prevalence of visual impairment in low birth weight and normal birth weight school age children

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### Abstract

**Objective:** Studies demonstrated that 9-10% of preschool children have visual impairment. By age seven, up to 13% of children will have some defect in visual acuity. Both prematurity and low birth weight have been associated with an increased incidence of ophthalmic disorders. In this study we determined prevalence of visual impairment in low birth weight and normal birth weight school age children in Mashhad. **Methods:** This is a cross sectional study. The target population consisted of all children referred to educational organizations for screening before entering school in Mashhad, Iran. 400 children enrolled in the study and were evaluated for amblyopia, refractive errors, color vision disturbance and optic nerve problems. Data were analyzed by SPSS. **Findings:** Prevalence of ophthalmic problems in all children was 9.5% and in low birth weight and normal birth weight 8.2% and 9.7% respectively. Incidence of ophthalmic problems was significantly ( $P=0.029$ ) higher in low birth weight children than in normal birth weight children. The most common ophthalmic disease in both low birth weight and normal birth weight children was refractive errors 81.0% vs. 78.8% ( $P<0.001$ ). Prevalence of myopia, amblyopia and color vision disturbance was also higher in low birth weight than in normal birth weight children. **Conclusion:** Low birth weight children are at greater risk of the visual impairment that may occur at an early age and result in long term morbidity. Visual outcome of low birth weight neonates should be evaluated routinely. © 2009 by Center of Excellence for Pediatrics, Children's Medical Center, Tehran University of Medical Sciences, All rights reserved.

### Author keywords

Low birth weight; Refraction errors; School age children; Visual impairment

### Indexed Keywords

**EMTREE medical terms:** age distribution; amblyopia; article; child; child health; color vision defect; controlled study; cross-sectional study; female; human; incidence; Iran; low birth weight; major clinical study; male; mass screening; myopia; optic nerve disease; population research; prevalence; refraction error; school child; vision test; visual impairment

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