



Visual development in babies

Research findings are valuable for providing information on vision, eye movements and binocular vision (use of the eyes together as a pair) in the newborn and infant. This information is of great assistance for parents and carers in understanding what is normal visual development and what to expect from their child at different ages.

The newborn is capable of focussing on a face immediately after birth. It also reacts to light and bright objects. However, the visual system is immature and eye movements are erratic.

At one month of age, eye movements continue to be jerky and the baby is mainly interested in looking at and following the human face. By three months, the child is very visually alert and shows interest in all objects at close range. Eye movements are mostly smooth and co-ordinated.

Between three and six months of age, vision has considerably matured and visual recognition of people and objects can be expected within six metres. At six months, all eye movements should be smooth and controlled and binocular vision is well established. If a newborn does not look towards a face, or a baby of three to six months appears not to react to visual stimuli, has erratic eye movements or misalignment of one eye, immediate investigation should be sought. A misalignment of the eyes is known as a strabismus or squint (crossed eyes) and leads to an interruption of visual development in the affected eye, which may cause significant loss of vision. This condition is usually permanent and does not resolve with time.

It is very important for parents to be aware that no baby or child is too young for an eye examination. Investigation should be sought from professionals who have special skills in testing vision, eye movements and binocular vision of babies and young children. These professionals are ophthalmologists (eye doctors) and orthoptists (allied health professionals).

Other abnormalities which indicate that infants and newborns should have medical attention immediately are: visual inattention, a white or irregular shaped pupil, a droopy eyelid, a watering eye or wobbly eyes (nystagmus). A family history of a turning eye or a relative who has worn glasses since childhood should be considered a significant risk factor.