

THE ROLE OF THE MEDICAL HOME IN VISION AND EYE HEALTH

A Fact Sheet for Medical Professionals



The pediatric medical home should play an important role in ensuring children receive timely eye examinations, vision screenings and, when necessary, eye examinations as well as treatment for vision conditions.

It is estimated that **one in five school-age children¹ and one in 20 preschoolers² have impaired vision.** However, many preschool children do not receive vision screenings as part of their well child care and health supervision.

The most prevalent vision problems affecting preschool-age children are amblyopia, strabismus and significant refractive error. If left undetected, these and other vision abnormalities can lead to cognitive, emotional, neurological and physical impairment, and, in some cases, permanent vision loss³. However, many of these difficulties can be avoided if vision disorders are identified and treated at an early age.

Families are frequently unaware that their child has a vision problem. Medical home providers may need to educate families about typical vision milestones and ask them to report any atypical behaviors they see (refer to family fact sheet titled "Vision Screening is Key to Healthy Development").

WHY IS A MEDICAL HOME IMPORTANT TO VISION AND EYE HEALTH?

- A medical home provides comprehensive primary medical care by coordinating the relationship between patients, pediatricians, other physicians and families.
- A medical home helps families access and understand specialty care, educational services, out-of-home care, family support and other public and private community services.
- A medical home ensures that all of the child's medical needs are met by partnering with the family and specialists.

The American Academy of Pediatrics and the National Center for Children's Vision and Eye Health support the Bright Futures and USPSTF guidelines that recommend formal vision screening for children starting in the preschool years. According to Bright Futures guidelines:

- Beginning at birth, all children should have an eye assessment by the primary care provider including an ocular history and assessment of the eyes, lids, ocular motility, pupils and red reflex.
- When vision screenings begin, parents should be questioned about any signs or behaviors by the child that may indicate a vision problem such as holding papers or books close to their face, eye crossing, or head tilting, as well as a family history of eye disorders or eyeglasses being prescribed at a young age.
- Eye charts used in vision screenings should be age and developmentally appropriate. Crowded LEA symbol or HOTV charts are best to use with children younger than six as they do not require the ability to discriminate left from right or full comprehension of the alphabet. Screenings should be conducted at a 10 foot testing distance in a quiet area with good lighting.
- Vision screening can also be performed using instruments such as auto-refractors. When selecting an instrument or photoscreening cameras for vision screening, select one that has been validated through peer reviewed studies with age-appropriate referral criteria programmed into the device.



- Assessment of a child's binocular vision can be performed by a validated test for stereopsis.
- Children can be evaluated with an ophthalmoscope to view the optic nerve or retina when they are able to fixate on a toy during the test.
- Infants and children who are found to have eye or vision problems at a screening or who are at high risk (such as children born prematurely (<32 completed weeks) or with neuro-developmental delay should be referred to a pediatric ophthalmologist or an optometrist experienced in treating children for further examination, diagnosis and treatment.
- When providing education and guidance to families of referred children, ensure they understand the information they are given to improve the likelihood of follow up to eye care and compliance with any recommended treatments.
- Health information technology tools can be useful for coordinating care, engaging patients and families in their care and storing, collecting and sharing data. Additionally, these tools can improve the likelihood of follow-up to eye care and compliance with any recommended treatments.
- Reimbursement for visual acuity screenings can be received through use of CPT Code 99173. The CPT code for using an instrument is 99174. Most health plans provide benefit coverage for vision screening, but payment may be bundled when performed as a part of well-child visits.

BENEFITS OF EARLY VISION SCREENING AND EYE EXAMINATIONS IN THE MEDICAL HOME

- Early detection and treatment of vision problems often results in better outcomes for children.
- Children who show signs of possible eye or vision issues should be referred to an eye care specialist for a comprehensive eye examination, diagnosis and appropriate treatment.
- Learning difficulties, emotional issues, neurological problems, development delays and blindness associated with treatable vision problems may be lessened.

RESOURCES FOR ADDITIONAL INFORMATION ON VISION SCREENING AND EYE HEALTH

National Center for Medical Home Implementation

www.medicalhomeinfo.org

The National Center for Medical Home Implementation (NCMHI) is a cooperative agreement between the federal Maternal and Child Health Bureau and the American Academy of Pediatrics. The NCMHI is a resource to assist health professionals, families and others in creating a medical home for all children and youth.

National Center for Children’s Vision and Eye Health

nationalcenter.preventblindness.org

Prevent Blindness America established the National Center for Children’s Vision and Eye Health (the “Center”) to support the development of a public health infrastructure to promote and ensure a comprehensive, multi-tiered continuum of eye health and vision care for young children. The Center serves as a resource for vision screening education, training and certification, family support resources, communication tools, and technical assistance.

American Academy of Pediatrics

www.aap.org

The mission of the American Academy of Pediatrics (AAP) is to attain optimal physical, mental, and social health and well-being for all infants, children, adolescents and young adults. Policy statements about eye examinations and vision screening are available on the AAP Web site.

Bright Futures

www.brightfutures.aap.org

The mission of Bright Futures is to promote and improve the health, education and well-being of infants, children, adolescents, families and communities through a set of principles, strategies, and tools that are theory-based, evidence-driven, and systems-oriented. Bright Futures uses a developmentally based approach to address children’s health needs in the context of family and community.

American Association for Pediatric Ophthalmology and Strabismus

www.aapos.org

The mission of AAPOS is to promote the highest quality medical and surgical eye care worldwide for children and for adults with strabismus. This organization’s goals are to advance the quality of children’s eye care, support the training of pediatric ophthalmologists, support research activities in pediatric ophthalmology, and advance the care of adults with strabismus.

U.S. Preventive Services Task Force

<http://www.uspreventiveservicestaskforce.org/uspstf/uspsvsch.htm>

The USPSTF is an independent panel of non-Federal experts in prevention and evidence-based medicine and is composed of primary care providers. The USPSTF conducts scientific evidence reviews of a broad range of clinical preventive health care services (such as screening, counseling, and preventive medications) and develops recommendations for primary care clinicians and health systems.

Online Educational Tools for Preschool Vision Screening Procedures

<http://www.test.eppicc.cme.uab.edu/default.asp>

Online training from the University of Alabama is available via their “Assessing for Strabismus and Amblyopia in Preschoolers” (ASAP) program. The program provides education on the use of the Eye Check visual acuity screening tool (conducted at 5 feet) and best practices for screening preschool-aged children. This program is available for CME/CE and is available to both clinicians and office staff.

<https://www.abp.org>

An online Preschool Vision Screening Performance Improvement Module is now available from the American Board of Pediatrics. This module meets the requirements for Maintenance of Certification Part 4 and also includes CME credit.

TAKE HOME MESSAGES....

An eye assessment—history and examination—should be conducted at every well child visit. Optimal eye health should be discussed at every well child or health supervision visit. Children who are at high risk—those born prematurely or with known neurodevelopmental disorders in any area (eg, hearing impairment, motor abnormalities such as cerebral palsy, cognitive impairment, autism spectrum disorders, and speech delay) should be referred directly to an eye care provider for further evaluation.

It is imperative to confirm that the child’s caregivers understand the test results.

Providers and families have a role to play in ensuring effective communication and coordination between the medical home, specialists and the family.

¹ Center for Health and Health Care in Schools. Childhood vision: what the research tells us. 2004. Available at <http://www.healthinschools.org/sh/visionfs.asp>. Accessed August 2012.

² U.S. Preventive Services Task Force. Screening for Visual Impairment in Children Younger than Age 5 Years. <http://www.ahrq.gov/clinic/3rduspstf/visionscr/vischrs.htm>.

³ National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention. What is Vision Impairment? October 29, 2004. <http://www.cdc.gov/ncbddd/dd/vision2.htm>.