



Greetings

Dear Colleagues:

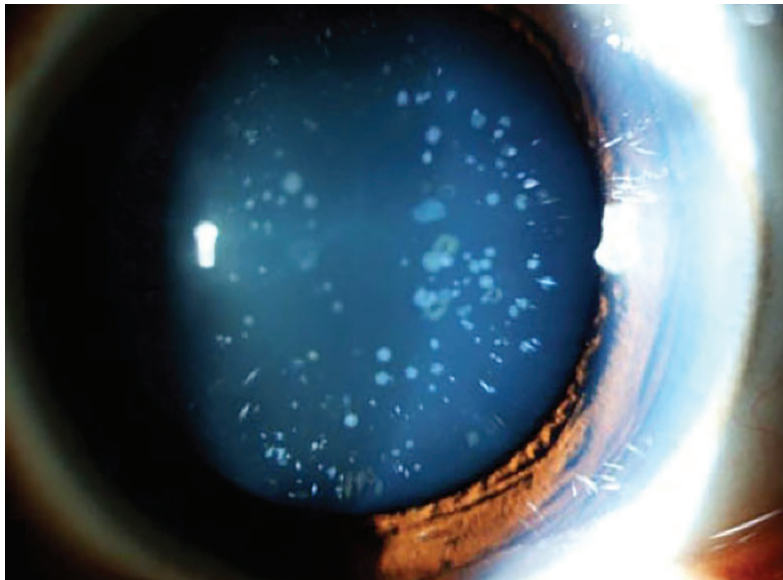
Welcome to the fall edition of *Pediatric Eye News*. The beginning of school is often a time when a child's vision will be put to the test. This issue focuses on amblyopia, a common yet potentially treatable cause of vision loss in young children. As always, this newsletter provides a brief review of the latest journal literature and an "EyeQ Test" to challenge your ophthalmic knowledge. Electronic copies of the newsletter and detailed information about our outstanding physicians, services, and facilities can be found on our webpage at <http://childrensnyp.org/mschony/ophthalmology.html>.

About Amblyopia

Amblyopia is the most common cause of unilateral vision loss in children and young adults with a prevalence of 1-4% in developed countries. It accounts for more cases of childhood-onset unilateral vision loss than all other causes combined. It is also treatable, if it is detected early enough.

Amblyopia is defined as a unilateral or bilateral reduction in best-corrected visual acuity that cannot be attributed to a structural abnormality in the eye or visual pathway. Although there is no single underlying cause, strabismus, optical blur, and visual deprivation from problems such as ptosis or cataract (*see photo above*) are the most common

underlying issues. If any of these problems results in inadequate or abnormal stimulation of the visual system during a critical period of visual development,



a span of time from birth to approximately age 6 to 7 years of age, amblyopia will occur. Animal models of amblyopia have revealed that chronic visual blur early in life, when the visual pathways are developing, causes distinct

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Division News

The Division continues to welcome referrals and new patients at both of its Manhattan locations: The Stephen M. Ross Center for Pediatric Ophthalmology located on the 5th floor of the Morgan Stanley-Children's Hospital of New York, and the Robert Burch Family Eye Center located at 15 west 65th St, on the first floor of the Lighthouse-Guild building.

A clinic dedicated to patients with pediatric cataract or pediatric glaucoma has been created to serve this highly complicated and high risk population. It is staffed by Dr. Steven Kane and Dr. Steven Brooks, as well as ophthalmology residents and fellows. It takes place in the Harkness Eye Institute, located at 635 west 165th St in NYC, on the second Friday of each month. Inquires can be made by contacting Carmen Romero at 212-342-1951, or Stuart Pressman at 212-305-5400.

Plans are also underway to create a pediatric ophthalmic diagnostic and imaging center at the Morgan-Stanley Children's Hospital of New York, funded in part by a generous gift from the Jonas Family Fund. This gift will also be used to support advanced clinical training in pediatric ophthalmology at Columbia, basic and translational research aimed at preventing and treating pediatric blindness, and other initiatives focused on pediatric eye care. Expect more news on this exciting initiative in upcoming newsletters.

EyeQ Test:



1. True or False: Amblyopia is always a unilateral condition.
2. The ideal time to surgically remove a congenital unilateral cataract in order to prevent dense amblyopia and nystagmus is:
 - a. By one year of age
 - b. At one week of life
 - c. At six weeks of life
 - d. By 3 years of age
3. Ptosis, or droopy eyelid, in infants may cause:
 - a. Deprivation amblyopia
 - b. Refractive amblyopia
 - c. A and B
 - d. None of the above
4. The following types of strabismus are common causes of amblyopia, except:
 - a. Intermittent exotropia
 - b. Acquired esotropia
 - c. Congenital esotropia
 - d. All of the above are common causes of amblyopia
5. True or False: Children with amblyopia typically show no symptoms, and act visually normal.

Answers: 1. False, 2. c, 3. c, 4. a, 5. True

Amblyopia (continued from page 1)

neuroanatomic alterations, including cell atrophy in both the lateral geniculate nucleus and visual cortex. It is in this same developmental window that timely intervention can partially or fully reverse these changes. Early detection and treatment of amblyopia are therefore of paramount importance. Management is directed at the underlying cause, but often involves patching (*see photo below*) or blurring of the strong eye to stimulate afferent input from the amblyopic eye.

Vision screening in the pediatric office is particularly critical to early detection. The American Association for Pediatric Ophthalmology and Strabismus has published specific clinical guidelines regarding the proper vision screenings to be performed at each age, and the specific criteria to be used for referral to a specialist. The complete published guidelines can be found at <https://aapos.org/terms/conditions/131>. There are several different age-appropriate techniques that may be successfully employed, and physicians may select the ones that best fit their particular practice. What is key, however, is that vision screenings are a part of the practice's standard of care.

Patients identified by the screening parameters as failing should be referred to a pediatric ophthalmologist for further evaluation. It is important to keep in mind that children with amblyopia do not complain of vision loss, and may act visually normal by using the good eye. It is equally important to remember that time is of the essence. The earlier in the critical period that amblyopia can be detected and treated, the better the chances for successful recovery of vision. The important role that the pediatrician plays in this process cannot be underestimated.



pediatric eye news

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