AMERICAN ACADEMY® OF OPHTHALMOLOGY
The Eye M.D. Association

POLICY STATEMENT

Frequency of Ocular Examinations

Policy

The frequency of ocular examinations should be based on the presence of visual abnormalities and the probability of visual abnormalities developing. Individuals who have ocular symptoms require prompt examinations. Individuals who do not have symptoms but who are at high risk of developing ocular abnormalities related to systemic diseases, such as diabetes mellitus and hypertension or who have a family history of eye disease, require periodic comprehensive eye examinations to prevent or minimize visual loss. The frequency of examinations depends on an individual's age, specific condition, and the likelihood of finding abnormalities on examination. Adults who have no symptoms, and who are at low risk, should receive an initial comprehensive eye examination by an ophthalmologist and follow a schedule of periodic assessment designed to detect ocular disease.

Background

There are several times in an individual's lifetime when an ocular examination is extremely important. Certain infectious, congenital, and hereditary eye diseases may be manifest at birth, and since they create a risk to vision if undetected, a screening in the newborn is justified. Infants who have detected abnormalities as well as infants with risk factors, such as systemic diseases or a family history of certain conditions, should be referred for a comprehensive eye examination by an ophthalmologist.

Children should receive age-appropriate eye health and vision screenings throughout childhood because different childhood eye problems may be detected at each visit and new problems can arise. The goal is to identify and treat preventable visual impairment at the earliest feasible age. The elements of vision screening vary depending on the age and level of cooperation of the child. Instrument-based screening is first recommended between 6–12 months of age and until a child is able to cooperate for subjective visual acuity testing as stated in the Academy's Pediatric Eye Evaluation, Preferred Practice Pattern® guidelines. The ophthalmologist should be aware there is a trade-off in terms of false positives and false negatives with instrument-based technology as data are analyzed on the basis of preset refractive error criteria to determine whether a child passes or fails.[1] Amblyopia is estimated to occur at a rate of 1–3% in children aged 6–72 months,[2, 3] and may lead to functional blindness if undetected by autorefractors or photoscreening. Therefore any child with an abnormal subjective visual acuity assessment, or one who has not been successfully tested by age 3,[1] should be referred for a comprehensive eye examination by an ophthalmologist.

The major abnormality among school-age children is the unrecognized development and progression of myopic refractive error, and individuals in this age group should be examined during primary health care visits. Myopia can develop in individuals in their 20s, and it can progress in those whose refractive error did not stabilize in the teenage years. In the young adult the rate of development of other significant eye disease is low, but it increases steadily after the age of 40.

Evaluation

Adults with no signs or risk factors for eye disease should receive a comprehensive medical eye evaluation at age 40 if they have not previously received one.[4] Before the onset of

presbyopia (at approximately age 40), the majority of American adults experience no changing refractive error or significant ocular disease and routine eye examinations are not indicated. For asymptomatic individuals or individuals without risk factors, who are 40 to 54 years old, and who have had a comprehensive eye examination, the recommended interval for evaluations is 2 to 4 years. For individuals aged 55 to 64 years old, the recommended interval for evaluations is 1 to 3 years. For individuals 65 years old or older, the American Academy of Ophthalmology recommends an examination every 1 to 2 years, even in the absence of symptoms.[5]

Note that an eye examination is warranted if ocular symptoms, visual changes, or injury are involved. Also, for individuals at higher risk for certain diseases, such as African-Americans and Hispanics who are at higher risk for glaucoma, comprehensive eye examinations should be considered every 2 to 4 years for those under age 40, every 1 to 3 years for those aged 40 to 54, and every 1 to 2 years for those aged 55 to 64, even in the absence of visual or ocular symptoms.[4, 6, 7, 8, 9, 10, 11]

Recommendations

1. Infants at high risk, such as those with the potential for retinopathy of prematurity and those with a family history of retinoblastoma, childhood cataracts, childhood glaucoma, or metabolic and genetic disease, should have a comprehensive examination by an ophthalmologist as soon as medically feasible.

2. Children should have an assessment for eye problems in the newborn period and then at all subsequent routine health supervision visits. The elements of the assessment vary with the age of the child. Abnormalities present at birth, such as opacities of the ocular media (e.g., congenital cataract) or ptosis, may have profound effects on normal vision development in an infant. By age 3 to 3 1/2 years, the child will generally cooperate enough for fairly accurate assessment of visual acuity and ocular alignment.[1] He or she should have these assessed by a pediatrician or other medical practitioner.[12] Any abnormalities or the inability to test are criteria for referral to an ophthalmologist.

3. School-age children should be evaluated regularly for visual acuity and ocular alignment (approximately every 1 to 2 years) during primary health care visits, in schools, or at public screenings. Note the choice and arrangement of optotypes (letters, numbers, symbols) on an eye chart can significantly affect the visual acuity score obtained. Preferred optoypes are standardized and validated.[1]

4. Individuals who develop diabetes mellitus type 1 should be examined by an ophthalmologist 5 years after disease onset and at least yearly thereafter.[13, 14] Individuals who develop diabetes mellitus type 2 should be examined at the time of diagnosis and at least yearly thereafter.[15] Women with type 1 or type 2 diabetes should receive a comprehensive eye examination before conception and then early in the first trimester of pregnancy. Recommended intervals for subsequent examinations depend upon the level of retinopathy.[16-18]

5. Adults with no signs or risk factors for eye disease should receive a baseline comprehensive eye evaluation at age 40.[4] Individuals without risk factors aged 40 to 54 should be examined by an ophthalmologist every 2 to 4 years. Individuals without risk factors aged 55 to 64 should be examined by an ophthalmologist every 1 to 3 years.[4, 5]

6. Individuals without risk factors 65 years old or older should have an examination performed by an ophthalmologist every 1 to 2 years as the incidence of unrecognized

ocular disease increases with age.[4, 5]

7. The frequency of ocular examinations in the presence of acute or chronic disease will vary widely with intervals ranging from hours to several months, depending on the risks involved, response to treatment, and potential for the disease to progress.

8. Any individual at higher risk for developing disease, based on ocular and medical history, family history, age, or race should have periodic examinations determined by the particular risks, even if no symptoms are present.

9. A routine comprehensive annual adult eye examination in individuals under the age of 40 unnecessarily escalates the cost of eye care and is not indicated except as described above.

Summary

In summary, the frequency of ocular examinations should depend on the individual's age, race, past ocular history, medical history, family history of eye disease, and the types of symptoms or ocular findings encountered. If significant ocular disease is detected, the frequency of examination will depend on the severity of the condition, the response to therapy or surgery, and the potential for detecting progression of the abnormality.

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Approvals
American Academy of Ophthalmology, Board of Directors, February 1983

Revised and Approved by:

American Academy of Ophthalmology, Board of Directors; September 1990, February 2000, February 2005, November 2009, February 2015

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