

Pediatric Eye and Vision Examination



American Optometric Association

GOALS OF THE PEDIATRIC EYE AND VISION EXAMINATION

- Evaluate the functional status of the eye and vision system
- Assess ocular health and related systematic health conditions
- Establish a diagnosis and formulate a Treatment plan
- Counsel and educate the patient regarding visual, ocular, and related systematic health status

Potential Components of the Pediatric Eye and Vision Examination*

(For patients birth to 18 years of age)

A. PATIENT HISTORY

- Presenting problem/chief complaint
- Visual /ocular/general health history
- Developmental/family history
- School performance history

B. VISUAL ACUITY

- Objective assessment (e.g. fixation preference, preferential looking, Bruckner test)
- Subjective measurement (e.g., Broken Wheel Acuity Cards, Lighthouse Card with matching blocks, HOTV test, Snellen acuity)

C. REFRACTION

- Photorefractive screening
- Static/cycloplegic retinoscopy
- Subjective refraction

D. OCULAR MOTILITY, BINOCULAR VISION, AND ACCOMMODATION

- Ocular motility/alignment
- Vergence amplitude/facility
- Accommodative amplitude/facility
- Suppression
- Fixation disparity/associated phoria

* The examination may include, but is not limited to, the procedures listed. Professional judgment and individual patient symptoms and findings may significantly influence the nature and course of the examination.

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E. OCULAR HEALTH ASSESSMENT AND SYSTEMIC HEALTH SCREENING

- Anterior and posterior ocular segments
- Pupillary responses
- Color vision
- Intraocular pressure (baseline measurement)
- Confrontation visual fields

F. SUPPLEMENTAL TESTING

- Developmental/perceptual testing

G. ASSESSMENT AND DIAGNOSIS

- Evaluate data to establish a diagnosis and formulate a treatment plan

H. PATIENT EDUCATION

- Review examination outcomes
- Explain available treatment options, including risks and benefits
- Recommend course of treatment, reasons for its selection, and prognosis
- Discuss need for follow-up care/compliance with prescribed treatment
- Recommend re-examination, as appropriate

TABLE 1

Recommended Eye Examination Frequency For Pediatric Patients

PATIENT AGE (Years)	EXAMINATION INTERVAL*	
	Asymptomatic/Risk Free	At Risk**
Birth to 24 months	At 6 months of age	At 6 months of age or as recommended
2 to 5 years	At 3 years of age	At 3 years of age or as recommended
6 to 18 years	Before first grade and every 2 years thereafter	Annually or as recommended

* The extent to which a child is at risk for the development of eye and vision problems determines the appropriate re-evaluation schedule. Individuals with ocular signs and symptoms require prompt examination.

** Factors that may place an infant, toddler, or child at significant risk for visual impairment or reduced visual functioning include:

- Prematurity, low birth weight, oxygen at birth, grade III or IV intraventricular hemorrhage
- Family history of retinoblastoma, congenital cataracts, or metabolic or genetic disease
- Infection of mother during pregnancy (e.g. rubella, toxoplasmosis, venereal disease, herpes, cytomegalovirus, or AIDS)
- Difficult or assisted labor, which may be associated with fetal distress or low Apgar scores
- High refractive error
- Strabismus
- Anisometropia
- Known or suspected central nervous system dysfunction evidenced by developmental delay, cerebral palsy, dysmorphic features, seizures, or hydrocephalus

NOTE: This Quick Reference Guide should be used in conjunction with the Optometric Clinical Practice Guideline on Pediatric Eye and Vision Examination (2002). It provides summary information and is not intended to stand alone in assisting the clinician in making patient care decisions.