



AREA	TOOLS	BASIC METHODS	ADDITIONAL ISSUES AND METHODS FOR 0–18 MONTHS	ADDITIONAL ISSUES AND METHODS FOR 18–36 MONTHS
History and General Development	<ul style="list-style-type: none"> • Questionnaire • Interview • Behavioral observations • Interaction 	<ul style="list-style-type: none"> • Reason for visit • History of present illness • Past • Family • Social • Review of systems 	<ul style="list-style-type: none"> • Developmental milestones – see Infant and Toddler Vision Development Checklist • Crawl • Sit • Stand • Walk • First words 	<ul style="list-style-type: none"> • Developmental milestones - see Infant and Toddler Vision Development Checklist • Begins to speak in sentences • Begins to run • Very inquisitive
Motility, Accommodation and Binocularity	<ul style="list-style-type: none"> • Light source • Penlight • Finger puppet or other appropriate target • Direct ophthalmoscope 	<ul style="list-style-type: none"> • Brückner • Hirschberg • Cover test • Versions • NPC • Krimsky 	<ul style="list-style-type: none"> • Symmetry of reflex: ophthalmoscope or retinoscope • Range of movement • Alignment issues • Avoidance of cover • Estimation of strabismus • Gross convergence 	<ul style="list-style-type: none"> • Pursuits and saccades • Aware of diplopia • Stereopsis • Keystone basic binocular • Lang • Randot • Most common: <ul style="list-style-type: none"> - Accommodative esotropia
Refractive Status	<ul style="list-style-type: none"> • Retinoscope • Automated refractor 	<ul style="list-style-type: none"> • Retinoscopy <ul style="list-style-type: none"> - Near dynamic - Mohindra - Cycloplegic 	<ul style="list-style-type: none"> • Will show large ranges – see AOA pediatric clinical practice guideline • Retinoscopy <ul style="list-style-type: none"> - Mohindra Add (-)0.75 to gross sph - Near • Use 0.5% Cyclopentolate or Cyclomydril if using cycloplegia • Note guidelines for anisometropia 	<ul style="list-style-type: none"> • See AOA pediatric clinical practice guideline • Autorefractor • Retinoscopy <ul style="list-style-type: none"> - Mohindra Add (-)1.25 to gross sph - 1.0% Cyclopentolate if using cycloplegia • Accommodation <ul style="list-style-type: none"> - Near dynamic retinoscopy
Visual Acuity	<ul style="list-style-type: none"> • Moving target • Preferential Viewing Test • Picture charts/LEA Symbols • 10 prism • Adhesive eye patch 	<ul style="list-style-type: none"> • Fixation preference • Fix and follow • Preferential looking tests- Teller or Cardiff Acuity Cards, LEA grating • Pictures/LEA Symbols • 10 Vertical Prism Test 	<ul style="list-style-type: none"> • Avoidance of occlusion on one side more than the other • Difference in response on testing 	<ul style="list-style-type: none"> • Broken wheel • LEA Symbols • HOTV
Ocular Health and Systemic Health	<ul style="list-style-type: none"> • Observation • Magnifying lens • Direct, monocular, or binocular indirect ophthalmoscope • Dilation 	<ul style="list-style-type: none"> • Anterior segment • Posterior segment • Pupillary responses • Confrontation fields • Tonometry – iCare, Tonopen, Pulsair 	<ul style="list-style-type: none"> • Most common: <ul style="list-style-type: none"> - Blocked tear duct - Abrasion - Bacterial conjunctivitis - See medications for birth to three 	<ul style="list-style-type: none"> • Most common: <ul style="list-style-type: none"> - Conjunctivitis - Accommodative esotropia

This quick reference guide should be used in conjunction with AOA's *Evidence-Based Clinical Practice Guideline: Comprehensive Pediatric Eye and Vision Examination*, (February 2017). It provides a summary and is not intended to stand alone in assisting the clinician in making patient care decisions. These recommendations include but are not limited to the areas, procedures and recommendations listed. Professional judgment and individual symptoms, findings and developmental level may significantly influence the nature and course of the examination.

OCULAR MEDICATIONS APPROVED FOR USE WITH INFANTS AND TODDLERS

ANTI-ALLERGY AGENTS – APPROVED FOR CHILDREN ≥ 2 YRS

Medication	Dosage	Age Approved
Alcaftadine 0.25%	qd	2 yrs
Bepotasine 1.5%	bid	2 yrs
Lodoximide 0.1%	qid	2 yrs

ANTI-INFECTIVE AGENTS – APPROVED FOR INFANTS

Medication	Dosage	Age Approved
Erythromycin 0.5%	qid-qd	2 mo
Tobramycin 0.3%	q1-4hrs; ung 2-4 x daily	2 mo
Trimethoprim and Polymyxin B	q3hrs for 7-10 days	2 mo
Moxifloxacin 0.5%	bid x 7days	4 mo
Azithromycin 1%	bid x 2days, qd x 5days	1 yr
Besifloxacin 0.6%	tid	1 yr
Gatifloxacin 0.3%	q2hrs x 2days, then qid x 3-7days	1 yr
Levofloxacin 0.5%	q2hrs x 2days, then q4hrs x 5days	1 yr
Ofloxacin 0.3%	q2-4hrs x 2days, then qid x 5days	1 yr

ANTI-INFLAMMATORY AGENTS – APPROVED FOR CHILDREN ≥ 2 YRS

Medication	Dosage
Fluorometholone 0.1%	2-4 x daily; ung 3 x daily

ANTIVIRAL AGENTS – APPROVED FOR CHILDREN ≥ 2 YRS

Medication	Dosage
Ganciclovir 0.15%	5 x daily, taper tid x 7days

STEROID-ANTIBIOTIC COMBINATION AGENTS – APPROVED FOR ≥ 2 YRS

Medication	Dosage
Fluoromethalone 0.1%/Sulfacetamide 10%	q4-6hrs
Neomycin 0.35%/PolymyxinB/Dexamethasone 0.1%	q3-4hrs; ung 4 x daily
Tobramycin 0.3%/Dexamethasone 0.1%	q3-4hrs; ung 1-4 x daily

INFANT AND TODDLER VISION DEVELOPMENT CHECKLIST*

Expected Visual Performances

BIRTH TO 6 WEEKS

- Stares at surroundings when awake
- Momentarily holds gaze on bright light or bright object
- Blinks at camera flash
- Eyes and head move together
- One eye may seem turned in at times

8 WEEKS TO 24 WEEKS

- Eyes begin to move more widely with less head movement
- Eyes begin to follow moving objects or people (8-12 weeks)
- Watches parent's face when being talked to (10-12 weeks)
- Begins to watch own hands (12-16 weeks)
- Eyes move in active inspection of surroundings (18-20 weeks)
- While sitting, looks at hands, food, bottle (18-24 weeks)
- Now looking for and watching more distant objects (20-28 weeks)

30 WEEKS TO 48 WEEKS

- May turn eyes inward while inspecting hands or toy (28-32 weeks)
- Eyes more mobile and move with little head movement (30-36 weeks)
- Watches activities around him or her for longer periods of time (30-36 weeks)
- Looks for toy he or she drops (32-38 weeks)
- Visually inspects toys he or she can hold (38-40 weeks)
- Creeps after favorite toy when seen (40-44 weeks)
- Sweeps eyes around room to see what's happening (44-48 weeks)
- Visually responds to smiles and voices of others (40-48 weeks)
- More and more visual inspection of objects and persons (46-52 weeks)

12 MONTHS TO 18 MONTHS

- Now using both hands and visually steering hand activity (12-14 months)
- Visually interested in simple pictures (14-16 months)
- Often holds objects very close to eyes to inspect (14-18 months)
- Points to objects or people using words "look" or "see" (14-18 months)
- Looks for and identifies pictures in books (16-18 months)

24 MONTHS TO 36 MONTHS

- Occasionally visually inspects without needing to touch (20-24 months)
- Smiles, facial brightening when views favorite objects and people (20-24 months)
- Likes to watch movement of wheels, egg beater, etc. (24-28 months)
- Watches own hand while scribbling (26-30 months)
- Visually explores and steers own walking and climbing (30-36 months)
- Watches and imitates other children (30-36 months)
- Can now begin to keep coloring on the paper (34-38 months)
- "Reads" pictures in books (34-38 months)

*Checklist courtesy of the Optometric Extension Program Foundation

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