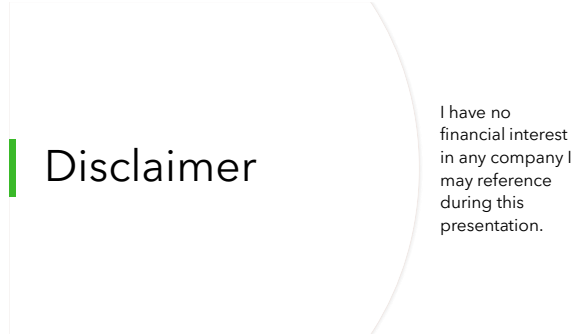




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About Me



Born & Raised in Kansas



Graduated from KU -- Rock Chalk!



Graduated from Southern College of Optometry

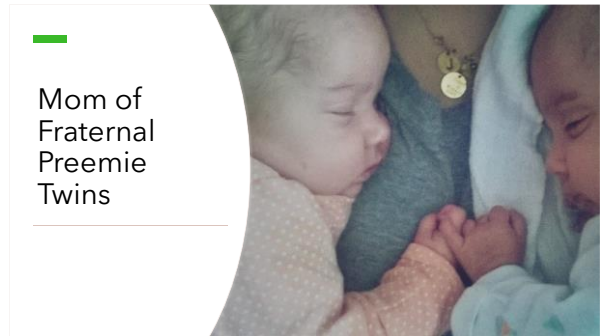


Completed Residency in Pediatrics & Vision Rehab



Own private practice with my husband in LVN and KC metro

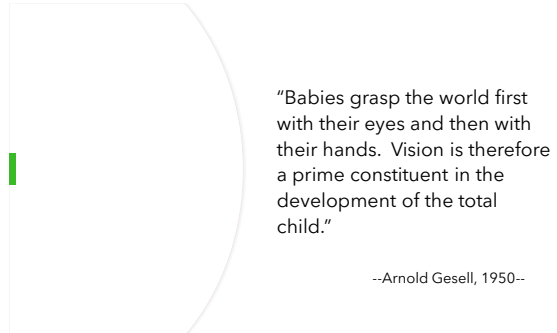
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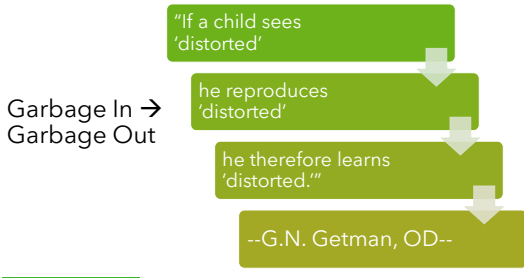
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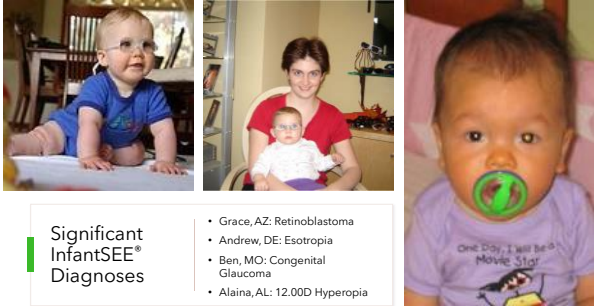
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Significant InfantSEE® Diagnoses

- Grace, AZ: Retinoblastoma
- Andrew, DE: Esotropia
- Ben, MO: Congenital Glaucoma
- Alaina, AL: 12.00D Hyperopia

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Vision is the **dominant** sense!



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Active vs. Passive Development



Motor Development



Baby Bucket

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Tummy Time - ACTIVE!

- When on tummy, babies attempt to raise head, not only to increase neck muscles, but also move visual function from closer distance to farther distances.
- Baby bucket is passive form of viewing
- Role of experience in development of visuo-motor coordination

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Visual Milestones 0-4 Months

Sensory Development

- At birth, primary focus is 8-10" from face
- More easily able to look at parents' face by 2 months
- Not able to distinguish colors readily...high contrast best

Motor Skills Development

- Roaming eyes for first 2 months
- Follow moving object with eyes and reach by 3 months

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In the News

Prospective longitudinal study found that infants later diagnosed with autism spectrum disorders (ASDs) show a decline in eye fixation from 2 to 6 months of age, a pattern not seen in infants who do not develop ASD.

These observations mark the earliest known indicators of social disability in infancy.

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Visual Milestones 5-8 Months

Sensory Development

- Believed to have improved color vision by 5 months
- Start demonstrating depth perception by 5 months

Motor Skills Development

- Eyes should be aligned at all times by 6 months
- Has ability to converge by 6 months
- Follows a target in seated position by 6 months
- Sits unsupported by 8 months
- Most begin crawling @ 8 months, which helps develop eye-hand-foot-body coordination

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Visual Milestones 9-12 months

Sensory Development


- Can judge distances accurately by 12 months and throw with more precision

Motor Skills Development

- Pulling up into standing position by 9 months
- Grasp objects with thumb & forefinger by 10 months
- Starting to walk supported by 12 months (don't encourage skipping crawling)
- Pincer grasp of raisin by 12 months
- Walks unsupported around 13 months

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General Hierarchical Movement



What (why) do parents use to try to speed up process?

Does this interfere with reaching the milestones at an appropriate time?

- Why crawling is important...





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Social & Emotional Milestones - 12 months

-  SHY OR ANXIOUS WITH STRANGERS
-  CRIES WHEN PARENTS LEAVES THE ROOM
-  ENJOYS IMITATING PEOPLE IN PLAY
-  SHOWS SPECIFIC PREFERENCES FOR PEOPLE & TOYS
-  TEST PARENTAL RESPONSES TO BEHAVIORS

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Social & Emotional Milestones - 12 months

-  MAY BE FEARFUL IN SOME SITUATIONS
-  REPEATS SOUNDS/ GESTURES FOR ATTENTION
-  FINGER-FEEDS HIM/HERSELF
-  EXTENDS ARM OR LEG TO HELP WHEN BEING DRESSED

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Cognitive Milestones - 12 months

- Explores objects in many different ways (shaking, dropping, banging)
- Find hidden objects easily
- Looks at correct picture when image named
- Imitates gestures
- Begins to use objects correctly (drinking from cup, brushing hair, dialing phone)

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Visual Milestones 1-3 Years

Sensory Development

- By 2 years, depth perception & eye-hand coordination is well developed
- Highly interested in exploring their environment

Motor Skills Development

- Climbs stairs (15 months)
- Tower of 4 cubes - Eye Hand Coordination (20 months)
- Imitates vertical line - Eye-Hand Coordination (24 months)
- Walks up/downstairs (24 months)
- Alternates feet on stairs (36 months)
- Rides tricycle (36 months)

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Visual Milestones 3-5 Years

Sensory Development

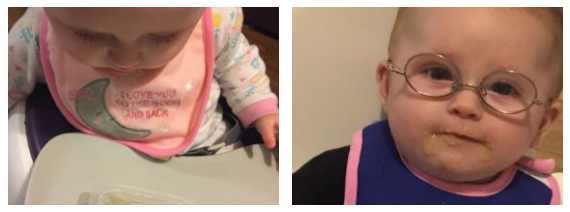
- Able to orient spatial directions (i.e. puzzle work, legos)
- Able to identify context clues in stories from pictures

Motor Skills Development

- Eye tracking still clunky, but should be improving as approaching 5 years old.
- Copies a circle (3 years)
- Draws man - 3 parts (4.5 years)
- Draws man - 6 parts (5.0 years)
- Copies a square (5.0 years)

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Vision → Motor Development




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Pathologies To Monitor

Infantile Glaucoma

- 1:10,000 births
- Large Eyes
- Excessive Tearing
- Photophobia
- Cloudy Cornea



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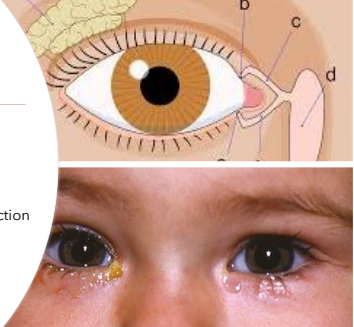
Pathologies to Monitor

Nasolacrimal Duct Obstruction

- Excessive tearing
- Bacterial stagnation/infection

Treatment

- Massage
- Surgical (debate)



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Pathologies to Monitor

Retinoblastoma
 1:16,000 births
 Immediate referral

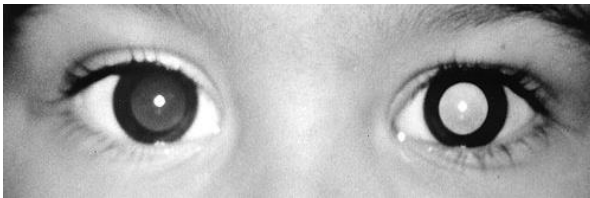
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Pathologies to Monitor

Congenital Cataracts
 4:10,000 Births
 Surgical Referral

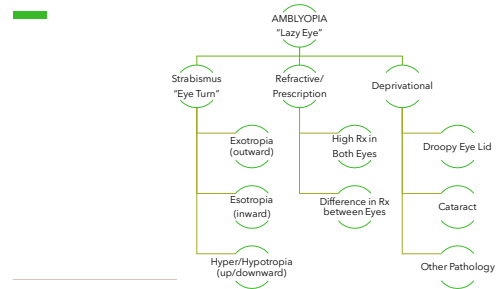
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Pathologies to Monitor

Amblyopia

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Activities for Visual Development

- Bilateral Integration**
- Bicycling
 - Push/Pull
 - Skipping
 - Crossing Midline
 - Catching

- Oculomotor Tracking**
- Catching a Ball on a String
 - Marble Roll
 - Flashlight Tag
 - Follow a Toy during Diapering
 - Airplane with Feeding
 - Line Rolling
 - Turn & Catch

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Activities for Visual Development

- Tummy Time**
- Visual Memory**
- Peek-a-Boo
 - Memory Cards

- Crib Placement**
- Eye-Hand Coordination**
- High 5's
 - Stacking Blocks
 - Stringing Cheerios
 - Stabbing Raisins

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Exam Recommendations

- 6-12 Months - InfantSEE
- 3 years old - SeeToLearn
- 5 years old
- Every 1-2 years thereafter



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Questions

areddell@FEClv.com



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