Children who should bypass vision screenings and go straight to an eye exam

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Vision Impairments in Children

• 5 to 10% of all preschool-aged children
  • Significant refractive error
  • Amblyopia
    • Poor vision
  • Strabismus
    • Misalignment of the eyes

Refractive Error

• Myopia
  • Nearsightedness

• Hyperopia
  • Farsightedness

• Astigmatism

Strabismus

Inward eye turn
Outward eye turn

Amblyopia

• High refractive error
• Visual deprivation
• Strabismus

Vision Impairments in Children

• Majority of human learning occurs visually

• Vision impairments – more than just “poor vision”
  • Emotional development
  • Neurological development
  • Physical development
Vision Screenings

- Done to detect children who have or are at a risk for having visual impairments
  - Significant refractive error
  - Strabismus
  - Amblyopia

- Early screening/detection and treatment = very important

Bypass Vision Screenings

- Children at risk for vision impairments
- Comprehensive eye examination
- Screenings versus Comprehensive eye examination
  - Very common myth: They are both the same thing.
- Which children are considered to be “at risk”....?

High Risk Populations

- Neurodevelopmental disorders
- Readily recognized eye abnormalities
- Born premature
- Maternal smoking, drug, alcohol use
- Family history of eye disorders
- Suspected to have an eye disorder
- Difficult to screen

Treatment Options

- Refractive Error
  - Glasses
  - Contact lenses

- Strabismus
  - Glasses
  - Prisms
  - Vision Therapy
  - Surgery

- Amblyopia
  - Glasses
  - Patching
  - Eye drops
Neurodevelopmental disorders

- Visual impairment affects their learning ability
- In addition, may have difficulty with:
  - Speech
  - Motor
  - Hearing
  - Cognition
- Early identification and intervention is critical

Cerebral Palsy

- Brain maldevelopment – characterized by motor dysfunction
  - *Refractive error
  - *Strabismus
  - *Amblyopia
  - Poor eye focusing skills
  - Poor eye tracking skills

Down Syndrome

- Chromosomal abnormality – cognitive delays
  - *Refractive error
  - *Strabismus
  - *Amblyopia
  - Poor eye focusing skills
  - Blepharitis/conjunctivitis

Autism

- Genetic risk and environmental factors
  - *Refractive error
  - *Strabismus
  - Poor eye tracking skills

Attention Deficit Hyperactivity Disorder

- Genetic risk and environmental factors
  - Poor eye teaming skills
    - Convergence Insufficiency – may be mislabeled as ADHD

Readily recognized eye abnormalities

- Strabismus
  - Esotropia
    - Inward eye turn
  - Exotropia
    - Outward eye turn
  - Hypertropia
    - Vertical misalignment
- Ptosis
  - Droopy eye lid
Readily recognized eye abnormalities

- Leukocoria (“white pupil”)
  - Uncorrected refractive error
  - Strabismus
  - Congenital cataract
  - Retinopathy of Prematurity
  - Coat’s disease
  - Retinoblastoma

Children with risk factors for eye disorders

- Born prematurely
  - <32 weeks of gestation
  - Low birth weight (<1500 grams = 3 lbs, 4 ounces)
  - At risk for retinopathy of prematurity
- Maternal smoking, drug or alcohol use during pregnancy
- Family history of eye disorders

Children suspected to have an eye disorder

- Complains about:
  - Blurry vision
  - Double vision
  - Headaches with near work
  - Squinting
  - Rubs eyes

Children who are difficult to screen

Something we can all relate to...

Conclusion

- Early detection and treatment is extremely critical
- Importance of follow up care
- Teamwork is key!!


