



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



Reena Patel, OD, FAAO

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

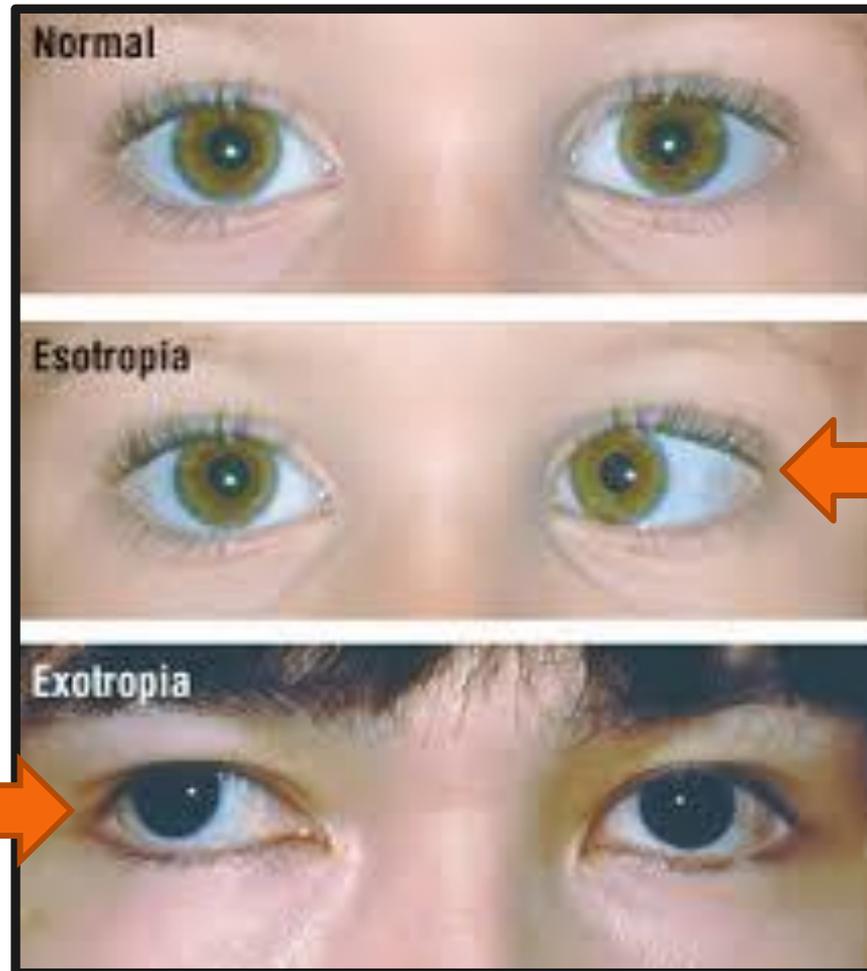
- farsightedness



∞ 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

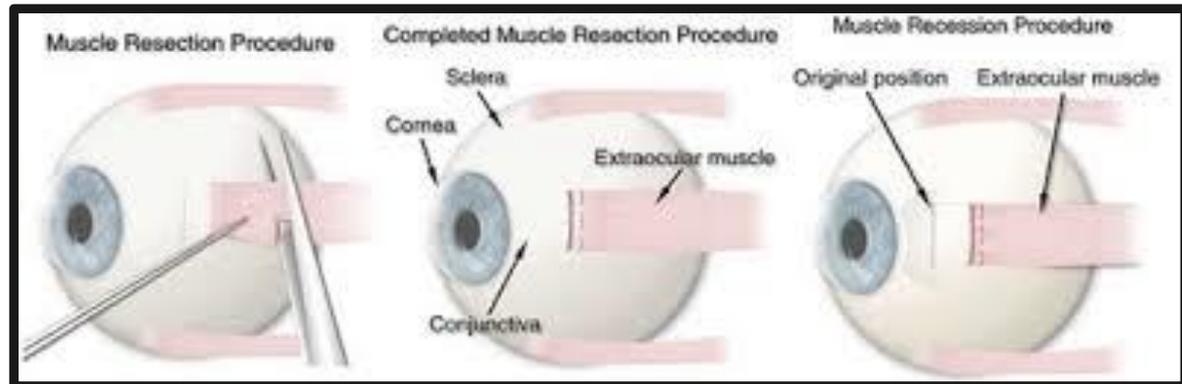
- Glasses
- Contact lenses



Treatment Options

Strabismus

- Glasses
- Prisms
- Vision Therapy
- Surgery



Treatment Options

∞ 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

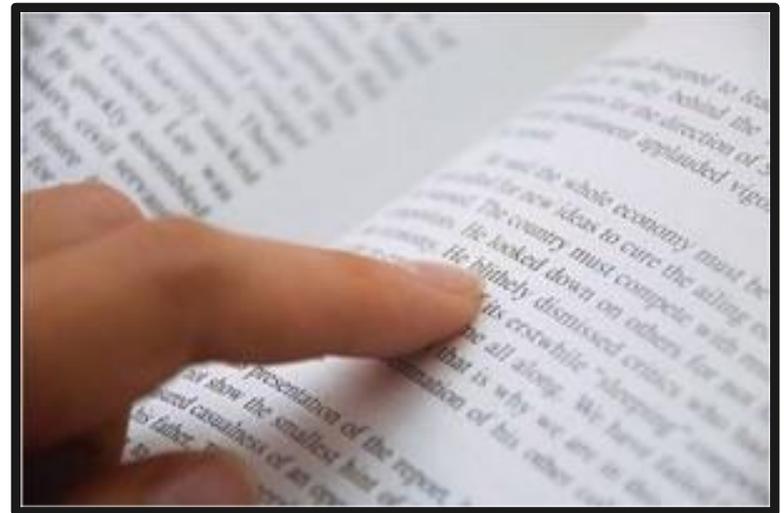
- *Refractive error
- *Strabismus
- *Amblyopia
- Poor eye focusing skills
- Blepharitis/conjunctivitis



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



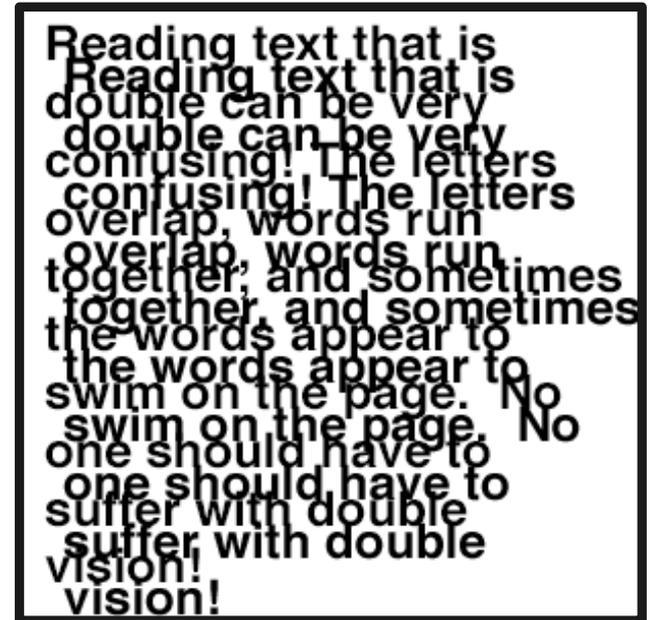
Children suspected to have an eye disorder

Complains about:

- Blurry vision
- Double vision
- Headaches
with near work

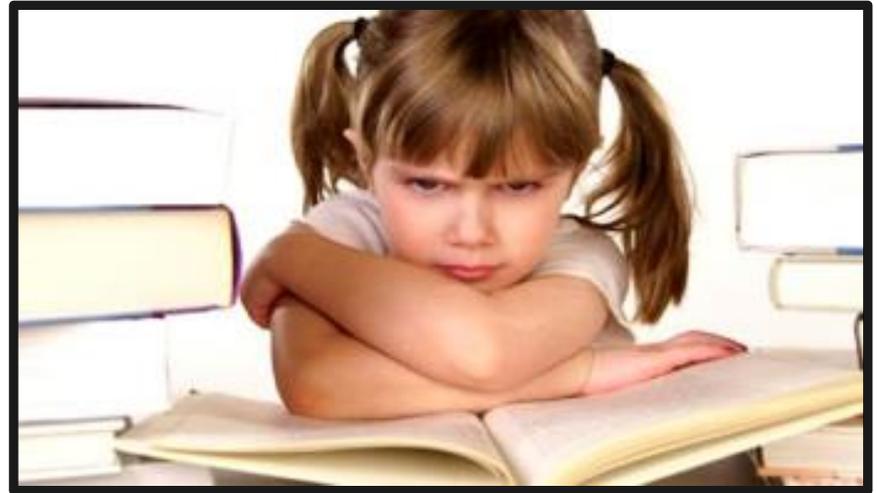
Squinting

Rubs eyes



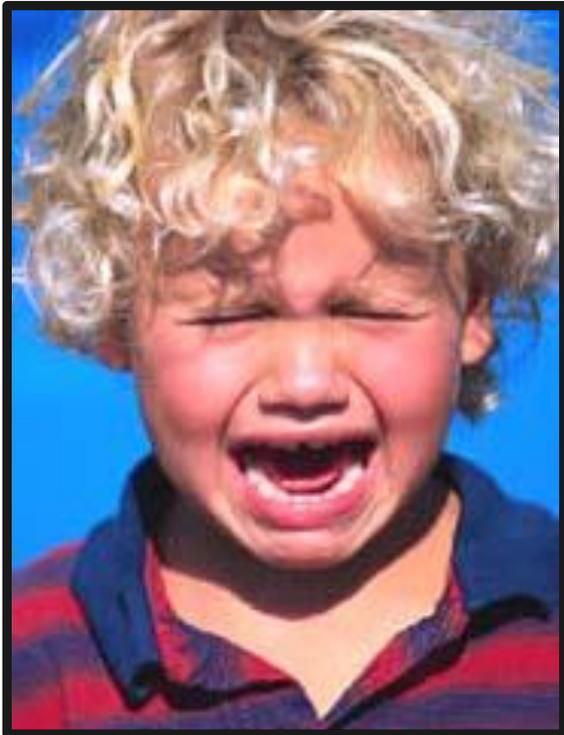
Children suspected to have an eye disorder

- ✎ Avoids reading
- ✎ Holds reading material very close
- ✎ Sits close to the TV
- ✎ Bumps into things
- ✎ Behavioral issues or refuses to do something



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!!



Thank you for your attention!



Reena Patel, OD, FAAO; rpatel@ketchum.edu



References

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