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Vision Screening:

3 – 5 Years for Head Start

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Introduction and Disclaimer



- Nearly 17 years in vision screening field
- *Former Director/Lead Trainer – Vision Initiative for Children – West Virginia University Eye Institute*
- Member –Advisory Committee to the National Center for Children’s Vision and Eye Health at Prevent Blindness
- *Consultant – Vision Screening Committee, American Association for Pediatric Ophthalmology and Strabismus*
- Current Education and Outreach Coordinator for the National Center for Children’s Vision and Eye Health at Prevent Blindness
- *Current Director – Vision and Eye Health Initiatives at Good-Lite and School Health Corporation*
- Not in sales . . . Focus is encourage age-appropriate, evidence-based, and best practice vision screening as part of a strong, 12-component, Vision Health System of Care



Preschool-Aged Children: Undetected and Uncorrected Vision Disorders Can Impact Learning

Squinting in circle time?
Coming to the front of the group during reading to look at picture's in the book?

5th grade – Cs & Ds.
Consistently unruly in class.
After VS & glasses, behaviors calmed almost immediately. 3 mo later – Bs & working on As. “You saved my nephew.”

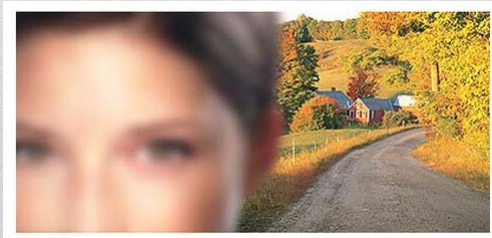
2015 study – low-income, ages 3 through 5 yrs – found: Improvement in academic progress, confidence & behavior - increase in focus during lessons & classroom participation & interaction

317 2nd & 3rd graders – 12 high-poverty schools – Baltimore City – Children *with* uncorrected hyperopia did not perform as well on reading assessments compared with children *without* hyperopia

2015 study – ages 4 and 5 yrs with hyperopia (farsightedness ≥ 4.0 D) scored *significantly* worse on early literacy test than children with normal vision

Diopter defined

- “Diopter” refers to the strength of a prescription lens required to give a child the clearest vision possible. The higher the number, the stronger the prescription lens.
- A child requiring 4 diopters of correction in prescription glasses, or contact lenses, would likely struggle with blurred vision, crossed eyes, or both, and would see much better with prescription glasses.



VIP-HIP Study Group, Kulp, M. T., Ciner, E., Maguire, M., Moore, B., Pentimonti, J., Pistilli, M., Cyert, L., Candy, R., Quinn, G., & Ying, G. (2016). Uncorrected hyperopia and preschool early literacy: Results of the Vision In Preschoolers – Hyperopia In Preschoolers (VIP-HIP) Study. *Ophthalmology*, 123(4), 681-689.

Collins, M. E., Mudie, L. I., Inns, A. J., & Repka, M. X. (2017). Overview of reading development and assessments for the pediatric ophthalmologist. Advance online publication. *Journal of AAPOS*. doi:10.1016/j.jaapos.2017.06.017

Peterseim, M. M., Papa, C. E., Parades, C., Davidson, J., Sturges, A., Oslin, C., Merritt, I., & Morrison, M. (2015). Combining automated vision screening with on-site examinations in 23 schools: ReFocus on Children Program 2012 to 2013. *Journal of Pediatric Ophthalmology & Strabismus*, 52(1), 20-24.

True story from Charles Short – Indiana Lions District 25C – West Lafayette, IN

- First grade reading ability found to be predictive of 11th grade reading outcomes, including:



- Reading comprehension,
- Vocabulary, and
- General knowledge.

Cunningham, A. E., & Stanovich, K. E. (1997). Early reading acquisition and its relation to reading experience and ability 10 years later. *Developmental Psychology*, 33(6), 934-945.

Evidence-Based Vision Screening Tools & Procedures for Children Ages 3 Through 5 Years

- Optotype-Based Screening
- Instrument-Based Screening



Cast of Characters

NCCVEH:

- National Center for Children's Vision and Eye Health at Prevent Blindness

AAP:

- American Academy of Pediatrics
- American Association for Pediatric Ophthalmology and Strabismus
- American Academy of Ophthalmology
- American Association of Certified Orthoptists

2 Approaches to Vision Screening

1. Optotype-based screening

- Tests of visual acuity using optotypes to measure visual acuity as interpreted by the brain
 - *Quantifiable measurement of the sharpness or clearness of vision when identifying black optotypes on a white background using specific optotype sizes at a standardized distance*

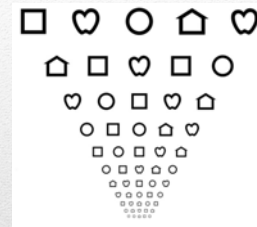
2. Instrument-based screening

- Instruments do not measure visual acuity
- *Instruments analyze digital images of the eyes to provide information about amblyopia risk factors:*
 - Estimates of significant refractive error (hyperopia, myopia, astigmatism)
 - *Estimates of anisometropia*
 - Estimates of eye misalignment (some, not all)

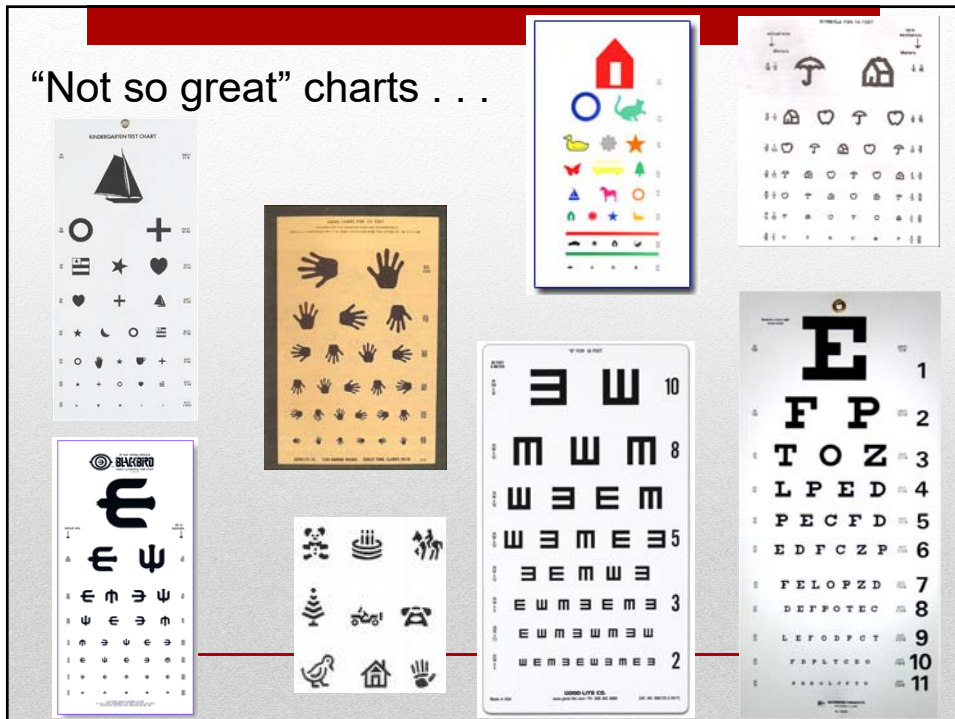


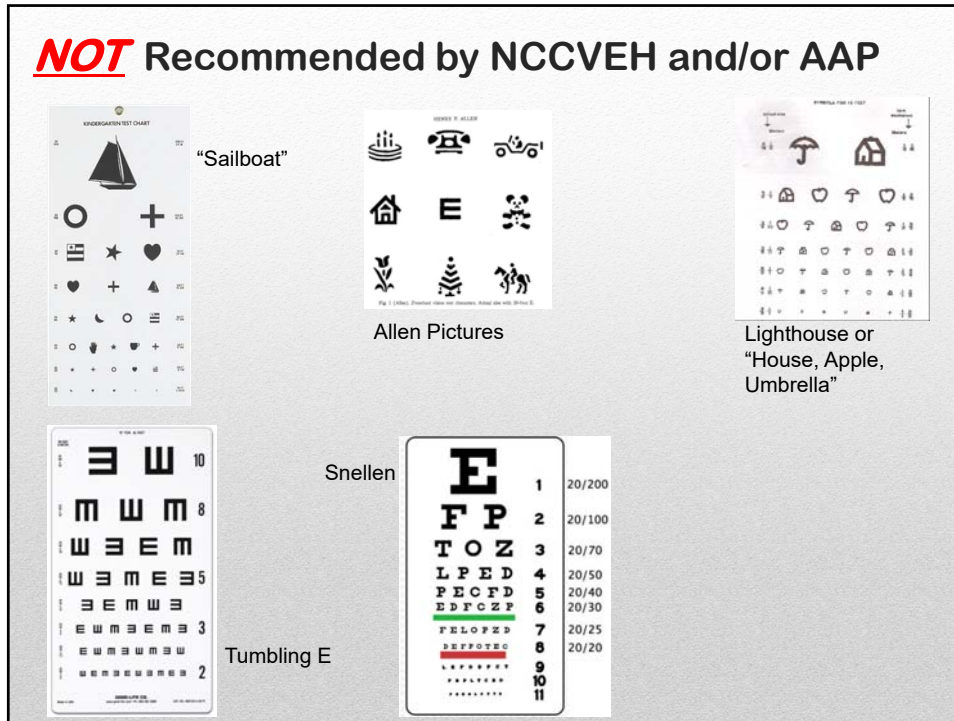
Threshold & Critical Line Screening

- Threshold screening
 - Move down chart until child cannot correctly identify majority of optotypes
- Critical line screening
 - Use only line child needs to pass according to child's age



"Not so great" charts . . .





Why **NOT** Recommended?

- The use of validated and standardized optotypes and acuity charts is important for an accurate assessment of vision.
- Charts not standardized.
- Children may not know their letters.
- Requires discrimination of direction, which is not sufficiently developed in preschool-aged children.
- Not well validated in screening environment.

Cotter, S. A., Cyert, L. A., Miller, J. M., & Quinn, G. E. for the National Expert Panel to the National Center for Children’s Vision and Eye Health. (2015). Vision screening for children 36 to <72 months: Recommended practices. *Optometry and Vision Science*, 92(1), 6-16. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4274336/pdf/oxp-92-06.pdf>

Donahue, S. P., Baker, C. N., AAP Committee on Practice and Ambulatory Medicine, AAP Section on Ophthalmology, American Association of Certified Orthoptists, American Association for Pediatric Ophthalmology and Strabismus, American Academy of Ophthalmology (2016). Procedures for the evaluation of the visual system by pediatricians. *Pediatrics*, 137(1), e20153597. Retrieved from <http://pediatrics.aappublications.org/content/pediatrics/early/2015/12/07/peds.2015-3597.full.pdf>

Importance of Appropriate Tools

- “Visual acuity scores can be significantly affected by the chart design.” (p. 1248)
 - Bailey, I.L. (2012). Perspective: Visual acuity – Keeping it clear. *Optometry and Vision Science*, 89(9), 1247-1248.
- Excluding optotype size, “each visual acuity level on a test chart should present an essentially equivalent task”. (p. 740)
 - Bailey, I. L., & Lovie, J. E. (1976). New design principles for visual acuity letter charts. *American Journal of Optometry & Physiological Optics*, 53(11), 740-745.

National and international distance visual acuity eye chart design recommendations

- **1980 - National Academy of Sciences-National Research Council (NAS-NRC)**
 - Committee on Vision. (1980). Recommended standard procedures for the clinical measurement and specification of visual acuity. Report of working group 39. Assembly of Behavioral and Social Sciences, National Research Council, National Academy of Sciences, Washington, DC. *Advances in Ophthalmology*, 41:103–148.
- **1984 - International Council of Ophthalmology (ICO)**
 - www.icoph.org/dynamic/attachments/resources/icovisualacuity1984.pdf
- **2003 - World Health Organization Prevention of Blindness & Deafness (WHO)**
 - Prevention of blindness and deafness. Consultation on development of standards for characterization of vision loss and visual functioning. Geneva: WHO;2003 (WHO/PBL/03.91).
- **2010 – American National Standards Institute, Inc.**
 - ANSI Z80.21-1992 (R2004) Approved May 27, 2010

Optotypes approximately equal in legibility

Horizontal between-optotype spacing = 1 optotype width

Vertical between-line spacing = height of next line down

Geometric progression of optotype sizes of 0.1 log units (logMAR, ETDRS)

5 optotypes per line

Optotypes black on white background with luminance between 80 cd/m² and 160 cd/m²

Similar recommendations across guidelines

Design guidelines = "ETDRS" or "logMAR" chart

Tips:

- Line outside optotypes
- 20/32 vs. 20/30
- 10 feet vs. 20 feet

YES

NO

Do the following eye charts fit national/international eye chart design guidelines?
Yes or No?

✓

Preferred Optotypes for Ages 3 to 7 Years

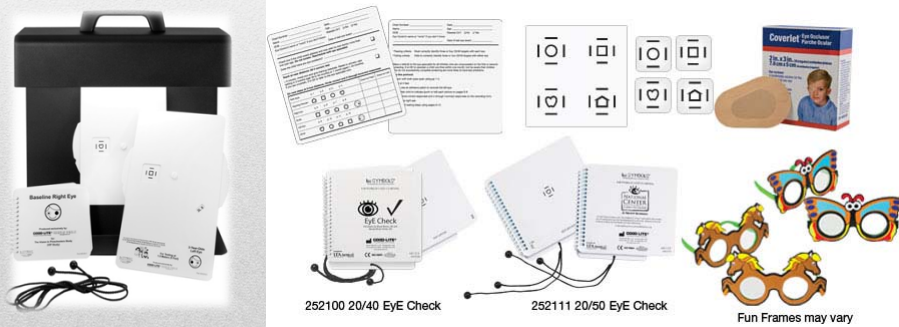
- NCCVEH
- AAP
- Recommend LEA SYMBOLS® and HOTV letters as optotypes

Cotter, S. A., Cyert, L. A., Miller, J. M., & Quinn, G. E. for the National Expert Panel to the National Center for Children's Vision and Eye Health. (2015). Vision screening for children 36 to <72 months: Recommended practices. *Optometry and Vision Science*, 92(1), 6-16. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4274336/pdf/oxp-92-06.pdf>

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Preferred Optotype Format

NCCVEH national guidelines call for using single, LEA SYMBOLS® or HOTV letter optotypes surrounded with crowding bars for children ages 3, 4, and 5 years at 5 feet




The image displays various pieces of vision screening equipment. On the left is a black carrying case with a handle. In the center are two eye charts: the '252100 20/40 Eye Check' and the '252111 20/50 Eye Check'. To the right are several 'Fun Frames' which are colorful, cartoonish glasses. Above the charts are some printed forms and a box of 'Coverfast' eye drops.

252100 20/40 Eye Check 252111 20/50 Eye Check Fun Frames may vary

Cotter, S. A., Cyert, L. A., Miller, J. M., & Quinn, G. E. for the National Expert Panel to the National Center for Children's Vision and Eye Health. (2015). Vision screening for children 36 to <72 months: Recommended practices. *Optometry and Vision Science*, 92(1), 6-16. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4274336/pdf/opx-92-06.pdf>

Options: Critical Line Screening at 10 feet

Sight Line Kit



The image shows a 'Sight Line Kit' which includes a carrying case, a critical line chart with a ruler, and several pairs of colorful, fun frames. The chart has a ruler at the top and a grid of symbols below it.

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Also acceptable . . .



- 5 or 10 feet from chart to child's eyes
- *New, standardized distance charts will be at 10 feet for children and adults*
- 10/xx on left side of chart with 20/xx on right side – report 20/xx



Screening Distance

Occluders – Younger Children <10 Years

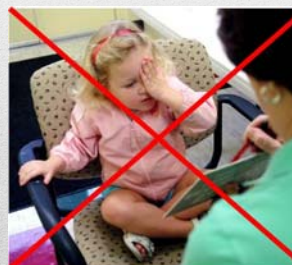


Unacceptable Occluders Ages 3, 4, and 5 years

- Hand
- *Tissue*
- Paper or plastic cup
- *Cover paddle*

Why unacceptable?

Children can easily peek



Cotter, S. A., Cyert, L. A., Miller, J. M., & Quinn, G. E. for the National Expert Panel to the National Center for Children's Vision and Eye Health. (2015). Vision screening for children 36 to <72 months: Recommended practices. *Optometry and Vision Science*, 92(1), 6-16. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4274336/pdf/opx-92-06.pdf>

To Point or Not to Point . . . ?

- Pointing to each optotype to help children know where they are on the chart is permissible.

True or False?



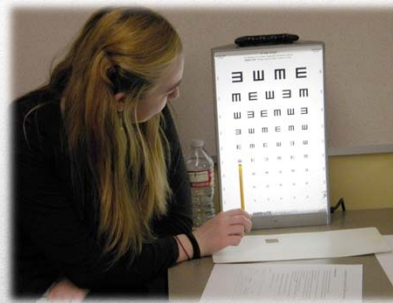
- 1.8 “Line-by-line isolation or pointing may be used, **but not letter by letter**”

World Health Organization (2003). *Consultation on development of standards for characterization of vision loss and visual functioning*. Geneva: Switzerland. Retrieved from http://apps.who.int/iris/bitstream/10665/68601/1/WHO_PBL_03.91.pdf



No Pointing at Optotypes

- Holding pointer at optotype makes optotype easier to identify.
- *Instead . . . briefly point under or over top of optotype and quickly remove pointer.*
- If line has a box around optotypes, stay outside the box with pointer.



- “Untestable” is not a failed vision screening.
- Keep track of “untestable” children.
- *Untestable children in VIP study were 2x as likely to have vision problems than those who passed vision screening.*
- If possible, rescreen untestable children same day.
- If you have reason to believe that the child may perform better on another day, consider rescreening the child no later than 6 months.

Vision in Preschoolers Study Group. (2007). Children unable to perform screening tests in Vision in Preschoolers Study: Proportion with ocular conditions and impact on measure of test accuracy. *Investigative Ophthalmology & Visual Science*, 48(1), 83-87.

American Academy of Ophthalmology Pediatric Ophthalmology/Strabismus Panel. (2012). Preferred Practice Pattern® Guidelines. Amblyopia. San Francisco, CA: American Academy of Ophthalmology. Retrieved from <https://www.aao.org/preferred-practice-pattern/amblyopia-ppp--september-2012>

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Referral Criteria

NCCVEH

- Age 3 years:
 - Majority of optotypes on 20/50 line
- Ages 4 and 5 years:
 - Majority of optotypes on 20/40 line
- Ages 6 years and older:
 - Majority of optotypes on 20/32 line

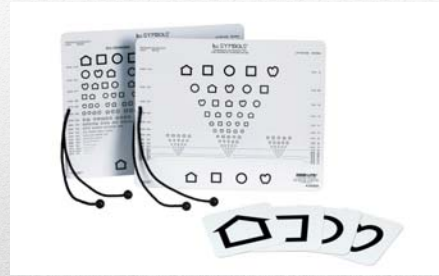
AAP

- Age 3 years:
 - Majority of optotypes on 20/50 line
- Ages 4 years:
 - Majority of optotypes on 20/40 line
- Ages 5 years and older:
 - Majority of optotypes on 20/32 (or 20/30) line
 - Or 2-line difference even in passing lines (i.e., 20/20 and 20/32)

Cotter, S. A., Cyert, L. A., Miller, J. M., & Quinn, G. E. for the National Expert Panel to the National Center for Children's Vision and Eye Health. (2015). Vision screening for children 36 to <72 months: Recommended practices. *Optometry and Vision Science*, 92(1), 6-16. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4274336/pdf/opx-92-06.pdf>

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Choices for Near Vision Screening



Can do critical line only with both eyes open or one eye at a time.

2 Approaches to Vision Screening

- Optotype-based screening
 - Tests of visual acuity using optotypes to measure visual acuity as interpreted by the brain
 - Quantifiable measurement of the sharpness or clearness of vision when identifying black optotypes on a white background using specific optotype sizes at a prescribed and standardized distance
- Instrument-based screening
 - Instruments do not measure visual acuity
 - Instruments analyze digital images of the eyes to provide information about amblyopia risk factors:
 - Estimates of significant refractive error (hyperopia, myopia, astigmatism)
 - Estimates of anisometropia
 - Estimates of eye misalignment



Instrument-Based Screening

- Use beginning at 12 months; better success at 18 months (AAP)
- Use instruments OR tests of visual acuity for children ages 3, 4, and 5 years (NCCVEH and AAP)
- Instruments at any age for 6 years and older if child or young adult cannot do test of visual acuity (AAP)



Donahue, S. P., Baker, C. N., AAP Committee on Practice and Ambulatory Medicine, AAP Section on Ophthalmology, American Association of Certified Orthoptists, American Association for Pediatric Ophthalmology and Strabismus, American Academy of Ophthalmology (2016). Procedures for the evaluation of the visual system by pediatricians. *Pediatrics*, 137(1), e20153597. Retrieved from <http://pediatrics.aappublications.org/content/pediatrics/early/2015/12/07/peds.2015-3597.full.pdf>

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Instrument-Based Screening

- If use instruments, no need to also do visual acuity screening unless you want to check both VA and refractive error.
- If cannot "capture" a pass or refer result... refer child for comprehensive eye exam.



- Do not attempt to convert estimated refractive error to visual acuity value.
- Child could fail vision screening with instrument, but pass with conversion and miss opportunity for eye exam.

Conversion Chart: Refractive State to “estimated” Visual Acuity^{[1][2]}

Myopia		Hyperopia			
Nearsighted		Farsighted			
Minus (-) Sphere		Plus (+) Sphere	Plus (+) Sphere	Plus (+) Sphere	
Ages: All	Estimated Visual Acuity	Ages: 5y to 15y	Ages: 25y to 35y	Ages: 45y to 55y	Estimated Visual Acuity
-0.5	20/30-40	+2.00	+1.25	+1.00	20/20
-0.75	20/50	+3.00	+1.75	+1.25	20/25
-1	20/60	+3.25	+2.50	+1.50	20/30
-1.25	20/70	+3.75	+3.00	+1.75	20/40
-1.5	20/100	+4.25	+3.50	+2.00	20/50
-2.5	20/200	+4.75	+4.00	+2.50	20/70

[1] Spherical results are based upon minus (-) cylinder convention.

Donahue, S. P., Cotter, S. A., & Moore, B. (in press). Position statement on the relationship between visual acuity and refractive error in the context of preschool vision screening using instrument-based technology.

Not Recommended for conversion of screening results for children screened for amblyopic risk factors

Instruments “Approved” by NCCVEH



Welch Allyn®
Spot™ Vision Screener



Plusoptix
S12C Vision Screener



Welch Allyn®
SureSight™
Vision Screener

Disclaimer: These tools are examples of vision screening instruments for this age group. These are not shown for the purpose of sales or promotion.

- You may see nothing in your child's behaviors that suggests your child has a vision problem.
- Most vision problems are not like a scratch that requires a bandage.
- Screening is the only way to know if the eyes are healthy and vision is developing properly.



Parents Want to Know . . .

- What's involved in the vision screening process?
 - How long does it take?
 - Does it hurt?
 - What happens next?
- How to receive support from other parents who have gone through this (eye exam).
- Information from Parent Focus Group at 2013 National Head Start Association Parent Conference



How Parents Say They Want to be Engaged in Follow-up to Eye Care

Parents and caregivers will likely need both practical/logistical and social/emotional support for themselves and their children

- Financial
- Transportation
- Helping parents manage follow-up appointments
- Dealing with insurance companies
- Acceptance of problem
- Dealing with cultural understanding and assumptions
- Trusting doctors

Resources to Support Families . . .

Financial Assistance Information

Association of Schools and Colleges of Optometry
 8178 Executive Boulevard, Suite 918
 Rockville, Maryland 20852
 Phone: (301) 251-2844
 Fax: (301) 775-1429
 www.asco.org

Cleveland Foundation Fund
 6800 N. Dulles Parkway, Suite 206
 Falls Church, VA 22044
 Toll-Free Patient Info: (877) 969-7223
 Main: (703) 586-1141
 www.cfd.org

Optometric Services Fund
 An independent 501(c)(3) non-profit charitable organization helping patients with chronic diseases obtain the appropriate medications for their eye care.

Prevent Blindness
 211 West Wacker Drive
 Suite 1700
 Chicago, Illinois 60606
 (800) 527-0200
 Prevent@PreventBlindness.org

Financial Assistance Programs

Eye Glasses

Care

Tips

Prevent Blindness of America

Tips for Wearing Eye Glasses

Parent Education

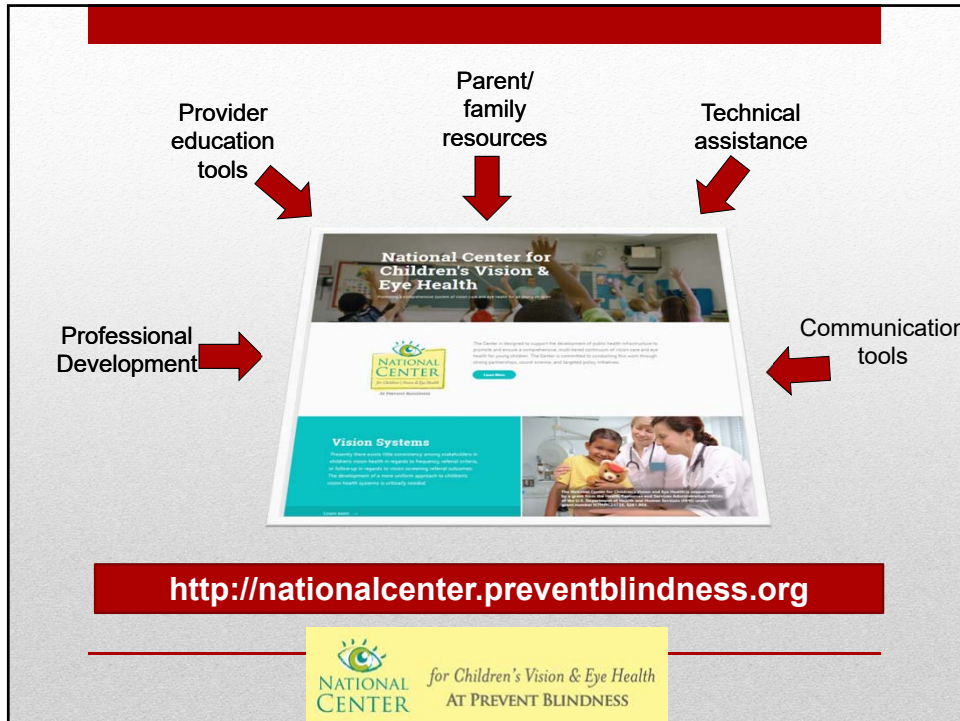
Parent Education resources in multiple languages.

EYES THAT THRIVE IN SCHOOL

ANALYTIKON

Eyes That Thrive:
<http://www.preventblindness.org/eyes-thrive>

<http://nationalcenter.preventblindness.org/resources-2>



Screenings & Referrals

A Historical Review of Distance Vision Screening Eye Charts

What to Toss, What to Keep, and What to Replace

P. Kay Nottingham Chaplin, EdD, West Virginia
Geoffrey E. Bradford, MD, West Virginia

These screening protocol and equipment guidelines differ among schools across the United States. Budget cuts are forcing many school nurses to reevaluate their vision screening programs, as well as items in their vision screening toolboxes. School nurses faced with incorporating these guidelines to determine which items to toss, keep, or replace are sometimes perplexed by the options choices featured in vendor catalogs and websites. For school nurses who want their vision screening toolboxes to include eye charts, national and international eye chart design guidelines are available to help ensure selected eye charts are considered a national consensus policy entity that recommends specific eye charts. And, a large body of vision screening literature is available to help school nurses make informed decisions. Current documents suggest that ILS symbols are appropriate for young children and Sloan Letters are a better choice than "Snellen" charts for older children.

Keywords: preschool vision screening, school-aged vision screening, ILS Symbols, HVTX, Sloan Letters, eye charts, eye chart design recommendations

Distance Visual Acuity Optotype Charts as Gold Standard

Optotype letters, numbers, and pictorial charts continue to serve as the most common test for assessing visual acuity in clinical practice (Hermann, Pohlke, & Radl, 2008). In schools, distance visual acuity eye charts have been the gold standard for decades (Proctor, 2005). Eye charts "are time-honored, considerably less expensive than vision testing machines and other similar equipment, and effective for screening, if appropriately selected and used" (Proctor, 2005, p. 33).

Challenges in Choosing Optotype Distance Visual Acuity Charts

Countless eye charts have emerged since Herman Snellen introduced his optotypes in 1862 (Herman, 1993). The "Snellen" chart concept has withstood the test of time, although this chart, as well as others, has design challenges that may reduce the accuracy of screening vision in children. Selecting appropriate eye charts is challenging because no one particular national standard exists to provide guidance on selecting distance visual acuity eye charts to use in the school setting.

Eye chart recommendations differ among the 50 states, and the District of Columbia, with school vision screening requirements (The Vision Council, 2005). Vendor catalogs and websites offer

Nottingham Chaplin, P. K., & Bradford, G. E. (2011). A historical review of distance vision screening eye charts: What to toss, what to keep, and what to replace. *NASN School Nurse*, 26(4), 221-228.

Screening/Referral

Vision and Eye Health

Moving Into the Digital Age With Instrument-Based Vision Screening

P. Kay Nottingham Chaplin, EdD
Kira Baldonado, BA
Amy Hutchinson, MD
Bruce Moore, OD

Significant advancements in vision screening research are leading to improved design, functionality, and reliability of screening tools. Presently, two vision screening approaches are available to school nurses for children ages 3 years and older: optotype-based screening and instrument-based screening. Optotype-based screening pertains to tests of visual acuity using optotypes (e.g., pictures, letters, and numbers), which children identify to determine visual acuity. Instrument-based screening pertains to automated devices that measure amblyogenic risk factors, such as refractive error, media opacities, and eye misalignment. Differences between the two approaches, best and acceptable practice recommendations for

have occurred in vision screening research, leading to improved design, functionality, and reliability of screening tools. Presently, two vision screening approaches are available to school nurses for children ages 3 years and older: optotype-based screening and instrument-based screening. Optotype-based screening pertains to tests of visual acuity using optotypes (e.g., pictures, letters, and numbers), which children identify to determine visual acuity. Instrument-based screening pertains to automated devices that measure amblyogenic risk factors, such as refractive error, media opacities, and eye misalignment.

This article describes tools and techniques for school nurses to screen

attempt screening if classmates may consider these children as "outcasts" because they are not included in screening activities.

Instrument-Based Screening

Often referred to as devices, automated screening instruments, or automated vision screening devices, instrument-based screening uses automated technology to provide an estimation of refractive error and information about the presence and magnitude of abnormalities of the eyes (Miller & Lessin, 2012). Most instruments can be placed in two categories: photorefractor/photostereoring devices and handheld, portable autorefractors.

Nottingham Chaplin, P. K., Baldonado, K., Hutchinson, A., & Moore, B. (2015). Vision and eye health: Moving into the digital age with instrument-based vision screening. *NASN School Nurse*, 30(3), 154-60.

Year of Children's Vision

- <http://nationalcenter.preventblindness.org/year-childrens-vision>
- *Archived vision screening webinars in Resources*



Resources to Support Families . . .

Financial Assistance Information

Association of Schools and Colleges of Optometry
1170 Executive Boulevard, Suite 410
Rockville, Maryland 20852
Phone: (301) 251-5844
Fax: (301) 770-1428
www.aosco.org

Many optometry schools offer low-cost care to people willing to be treated by supervised students. They may also provide free care to people who join research studies.

Chronic Disease Fund
6802 N. Dulles Parkway, Suite 200
Plano, TX 75024
Tel: (972) 782-1411; (877) 968-7333
Main: (972) 308-7141
www.cdfund.org

Chronic Disease Fund® is an independent 501(c)(3) non-profit charitable organization helping patients with chronic diseases. Our care is free, and we can help with the expenses associated with the care you need.



211 West Wacker Drive
Suite 1700
Chicago, Illinois 60601
800.371.2000
PreventBlindness.org



Financial Assistance Programs

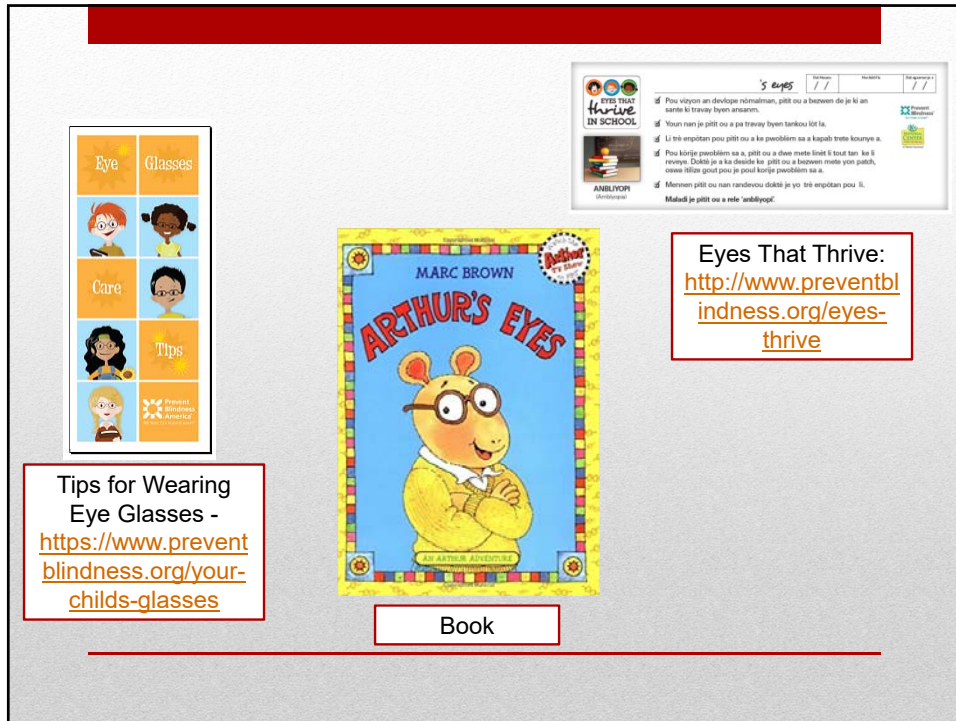
VS Referral Documents

你知道嗎
這是你孩子眼部健康的關鍵。能夠視物如常是兒童快樂、能向他人學習及與他人交際的基礎。但若有眼疾，則可能導致孩子失明。

眼疾的症狀
許多兒童眼疾可能無症狀。但若有眼疾，則可能導致失明。眼疾的症狀包括：
1. 視物不清、模糊、雙眼或視物時有重影。
2. 視物時有眼痛、紅腫、流淚、或視物時有異物感。
3. 視物時有眼癢、或視物時有眼癢。
4. 視物時有眼痛、或視物時有眼痛。
5. 視物時有眼癢、或視物時有眼癢。
6. 視物時有眼痛、或視物時有眼痛。

Parent Education

<http://nationalcenter.preventblindness.org/resources-2>



Eye Glasses

Care

Tips

Prevent Blindness

AMBLYPON

EYES THAT THRIVE IN SCHOOL

- ☑ Pous vijoten an devlopaj nòrmalman, pitit ou a bezwen de je ki an sante ki travay byen ansanm.
- ☑ Youn nan je pitit ou a pa travay byen tankou lòt la.
- ☑ Li trè enpòtan pou pitit ou a ke pwoblèm sa a kapab trete kourajè a.
- ☑ Pous kòrje pwoblèm sa a, pitit ou a dwe mete linèt li tout tan ke li reveye. Dèkòl je a ka dekadè ke pitit ou a bezwen mete youn patilè, ouwe lèlèn gwo pou je pou kòrje pwoblèm sa a.
- ☑ Menm pitit ou nan randevou dèkòl je yo trè enpòtan pou li.

Makèt je pitit ou a rele "amblyopi".

Arthur's Eyes

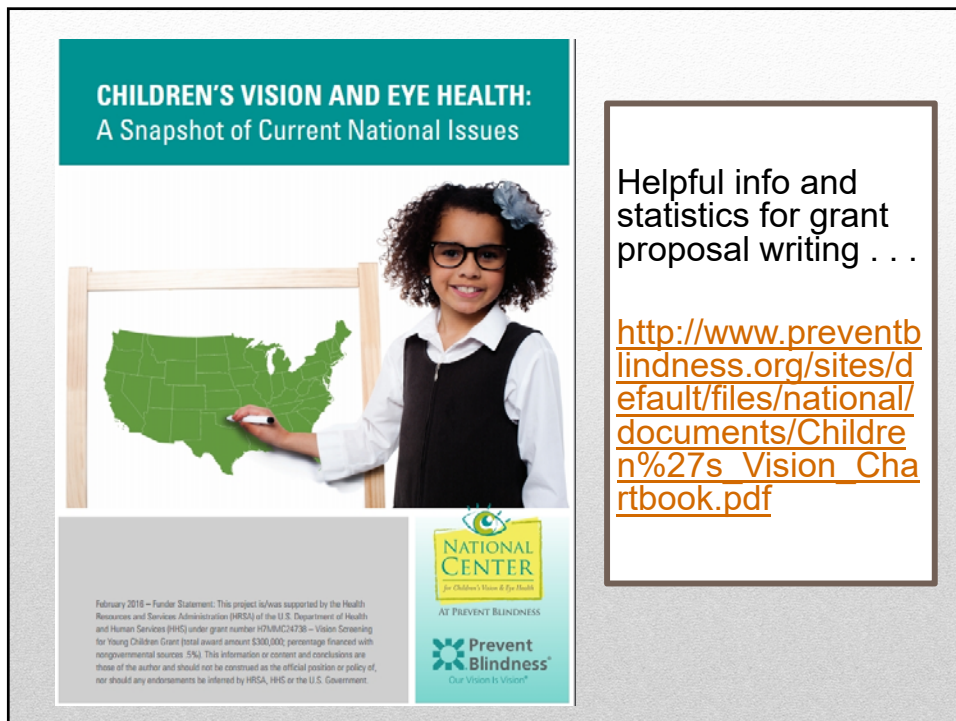
AT PREVENT BLINDNESS

Prevent Blindness

Eyes That Thrive:
<http://www.preventblindness.org/eyes-thrive>

Tips for Wearing Eye Glasses -
<https://www.preventblindness.org/your-childrens-glasses>

Book



CHILDREN'S VISION AND EYE HEALTH:
A Snapshot of Current National Issues

Helpful info and statistics for grant proposal writing . . .

http://www.preventblindness.org/sites/default/files/national/documents/Children%27s_Vision_Chartbook.pdf

NATIONAL CENTER
for Children's Vision & Eye Health

AT PREVENT BLINDNESS

Prevent Blindness
Our Vision Is Yours!

February 2016 – Funding Statement: This project is/was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number 5U49CE0024736 – Vision Screening for Young Children Grant (total award amount \$300,000; percentage financed with non-governmental sources: 5%). This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

NASN Vision and Eye Health Resource

(National Center for Children's Vision and Eye Health and NASN partnership)

<https://www.nasn.org/nasn-resources/practice-topics/vision-health>

The screenshot shows the NASN website page for 'Vision and Eye Health'. The page features the NASN logo, a navigation menu, and a search bar. The main content area includes a section titled 'Vision and Eye Health' with a sub-header 'Background'. The text discusses the partnership between the National Center for Children's Vision and Eye Health at Prevent Blindness and NASN, and mentions the 12 Components of a Strong Vision Health System of Care. There are also links to 'Search Journals Online', 'NASN SCHOOL NURSE', and 'Paperback Practice Tool'.

The screenshot shows the homepage for the 'Prevent Blindness Children's Vision Screening Certification Course'. The page features a large image of a young girl wearing glasses. The text on the page includes the title 'Prevent Blindness Children's Vision Screening Certification Course' and a sub-header 'Prevent Blindness has the only national certification program for children's vision screening'. There is also a 'Donate to Prevent Blindness' button in the top right corner.

Info for Prevent Blindness nationally recognized vision screening certification you can do online at your own pace

<http://nationalcenter.preventblindness.org/prevent-blindness-childrens-vision-screening-certification-course>

800-331-2020

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