

LEAs should provide information about the Affordable Care Act, TennCare, CoverKids and local county health department services and community health centers if available in the local community.

- **Partnerships:** In order to complement and expand the capacity for health care services in school systems, it is beneficial to develop community partnerships. Potential partners include but are not limited to universities, health departments, community hospitals, and non-profits.
- **Correspondence with Parents/Guardians:** Screening referral results for BP, vision and hearing should go out to the parents in a timely manner regarding the specific screen. Body Mass Index results should not be sent as standalone communication. If possible, provide each student with a health report card which includes the results of all screening services provided. It may be necessary to send a specific referral letter for any screening that needs follow-up.

## Vision Screening

[Tenn. Code Ann. § 49-6-5004](#) *Promotion of eye, hearing, and dental care awareness.*

- a) Upon registration or as early as is otherwise possible and appropriate, public schools, nursery schools, kindergartens, preschools, or childcare facilities are encouraged to make reasonable efforts to apprise parents of the health benefits of obtaining appropriate eye, hearing and dental care for children.
- b) A health care professional is authorized to indicate the need for an eye, hearing or dental examination on any report or form used in reporting the immunization status for a child as required under this part. Health care professionals shall provide a copy of the report or form to the parents or guardians indicating the need to seek appropriate examinations for the child.
- c) If the parent or guardian of a child with a need for an eye or hearing examination is unable to afford the examination, an LEA of a county or municipality may use revenues from gifts, grants and state and local appropriations to provide the eye or hearing examinations.
- d) LEAs are encouraged to seek free or reduced-cost eye examinations from optometrists or ophthalmologists and free or reduced-cost hearing examinations from physicians or audiologists willing to donate their services for children who are unable to afford the eye or hearing examinations.
- e) The commissioner shall promulgate rules and regulations in accordance with the Uniform Administrative Procedures Act, compiled in title 4, chapter 5, which are necessary to carry out this section.

### ***Vision Screening Recommendations***

The TDOE encourages LEAs to conduct annual vision screenings for all students in grades Pre-K, K, 2, 4, 6, and 8. If a Pre-K student has already been screened through their primary care provider prior to school entry, the data from their permanent record can be used instead of re-screening these students. LEAs may also conduct annual vision screenings for high school students. If LEAs choose to conduct annual vision screenings in high school, the LEA should screen the same grade-level or class year after year. For example, if the LEA conducts vision screenings for those students enrolled in wellness class, then the LEA should conduct vision screenings for students enrolled in the same wellness class every year thereafter. TDOE also encourages LEAs to conduct annual vision screenings for students that are new to the school system and/or suspected of having a vision problem by their teachers.

According to Prevent Blindness (2015), a screening does not take the place of a comprehensive eye exam and will not detect all potential vision disorders or diseases. Those students who received a comprehensive eye examination from an eye care provider (ECP), an optometrist or ophthalmologist, within the previous twelve months of the vision screening date do not need to be screened. A student may be referred for screening per local school district protocol at any point.

*Source:*

Prevent Blindness. (2015, August 5). *Prevent Blindness Position statement on School-Aged Vision Screening and Eye Health Programs*. <https://preventblindness.org/wp-content/uploads/2020/05/Prevent-Blindness-Statements-on-School-aged-Vision-Screening-Approved-8-2015-1.pdf>

## ***Vision Screening Rationale***

Vision screening programs for those aged five and younger focus on prevention of amblyopia (lazy eye) and the detection of amblyopia risk factors. Screening school-aged children aims primarily to detect refractive errors or other conditions that could potentially impact the students' ability to learn or to affect their academic performance. Vision screening is a cost-effective method to identify children in need of evaluation and treatment by an optometrist or ophthalmologist. Early diagnosis and treatment of vision disorders will allow for more normal visual development; prevent further loss of vision; and may decrease the impact of learning problems, poor school performance, developmental delays, and behavior concerns.

According to the American Optometric Association (2017) and Prevent Blindness (2015),

- Between two and three percent of pre-K-age children suffer from amblyopia.
- Between three and four percent of pre-K-age children suffer from strabismus, which causes the eyes to turn in or out.
- Up to 27 percent of pre-K age children have a refractive error, with hyperopia (farsightedness) being the most common error.
- Nine percent of school-aged children aged 12-19 have visual impairment because of uncorrected refractive error.

Early detection of vision problems is important. Unidentified and uncorrected vision problems and eye conditions can have a devastating impact on children's development. It is estimated that 80 percent of children's learning occurs through visual processing. Vision screenings can detect some conditions that are easier to correct at a young age, before irreversible vision damage occurs.

*Sources:*

American Optometric Association. (2017, February 12). Evidence-Based Clinical Practice Guideline: Comprehensive Pediatric Eye and Vision Exam. <https://www.aoa.org/AOA/Documents/Practice%20Management/Clinical%20Guidelines/EBO%20Guidelines/Comprehensive%20Pediatric%20Eye%20and%20Vision%20Exam.pdf>;

Prevent Blindness. (2015, August 5). *Prevent Blindness Position statement on School-Aged Vision Screening and Eye Health Programs*. <https://preventblindness.org/wp-content/uploads/2020/05/Prevent-Blindness-Statements-on-School-aged-Vision-Screening-Approved-8-2015-1.pdf>

## ***Vision Impairments***

### **Care of students with eyeglasses, contact lenses, or a known vision impairment**

If the student wears lenses or has a known vision impairment, school health personnel should determine whether the school has a record of the student's eye examination. It is recommended that the results of a professional eye examination and any recommendations that might affect school performance be obtained. If a student has lenses or reduced vision with lenses, school health personnel should do the following:

- School health personnel can assist the student in adjusting to the need for corrective lenses, if newly prescribed, and/or other therapeutic interventions such as patches, or eye drops.
- Engage in direct student counseling regarding eye health and safety.
- Emphasize the importance of continued follow-up by the student's eye care professional.
- Reinforce with the student the reasons for regular eye examinations.
- Teach the student the importance of keeping his/her lenses clean and properly adjusted. Demonstrate how to do this as needed.

### **Care of students with non-correctable vision loss (severe vision impairments)**

Some students have visual impairments that cannot be fully corrected through treatment. In these cases, school health personnel should do the following:

- Counsel parents/guardian regarding severe vision loss.
- Refer students to a teacher of the Visually Impaired and/or Orientation & Mobility specialist.
- Refer to the special education specialist within the school district.
- Refer parents/guardians to the program for students with disabilities in their county for eligible services relating to the student's visual impairment.
- Review the professional eye exam report for information to determine if any adjustments or accommodations need to be made to the student's education program (including participation in physical education, intramurals, and interscholastic sports).
- Maintain identification procedures for students with severe visual impairment as well as referral and follow-up services at periodic intervals.
- Make certain the student is following the eye care professional's recommendations regarding the wearing of protective eyewear for activities at school with a risk of eye injury. This may include assisting the student in obtaining appropriate eyewear and explaining to school staff the importance of the student wearing the eyewear at school.

### ***Vision Screening Program***

School vision screening programs should include:

1. Recording of any signs, symptoms, and relevant history as reported by the student, parent/guardian, and/or school staff that may indicate visual problems.
2. Observation and recording of any unusual features or eye movement of the student during screening.
3. Observation and recording of the student's behavior during screening (i.e., squinting, rubbing eyes, moving forward).
4. Screening and recording of the following visual tests:
  - a. Distance visual acuity: annually in grades Pre-K, K, 2, 4, 6, and 8.
  - b. Color perception: one-time screening to be done at the initial screen.
  - c. Near visual acuity: annually in grades Pre-K, K, 2, 4, 6 and 8.
  - d. Functional tests such as muscle balance and depth perception or ocular motor.
5. The vision screening results including proper notification of the parent/guardian, documentation of follow-up efforts by health office personnel (school nurse or other designated person), and eye care professional evaluation findings, should all be recorded on the student's cumulative health record

(CHR) or in the electronic student management system. Screening results should be printed and sent with record request from other schools when students transfer.

## ***Equipment Needed***

- **Eye Chart** – Sloan Letters chart at ten feet is preferred for distance visual acuity testing in those that know their letters and can verbally respond. A Snellen chart properly calibrated for ten feet may also be used for distance acuity. Pre-K/young students who are unable to recall letters should be tested with either the HOTV or LEA symbols chart at ten feet with matching cards available. Measure the distance between the student and the eye chart. Tape may be used to mark the spot for the student to sit or stand. A reduced Snellen, HOTV, or LEA symbols chart should be used for measuring near acuity. Mechanical vision testers capable of testing both distance vision and near vision are available, but less desirable. If using a mechanical vision tester, it must be calibrated annually or according to the manufacturer’s recommendation.
- **Occluder** - Occlusive patches (which can be as simple as a piece of two-inch paper tape; use new piece for each student), or occluder glasses, are preferred for children 3-10 years old. Those 10 years and older may use a “mardi gras mask” occluder or “lollypop” occluder. Care must be taken to ensure that the student is not peeking around the occluding device used. It is not recommended to have a student, or an assistant hold their hand over the student’s eye.
- **Pointer** – the examiner’s finger, a stick, or a laser pointer may be used to attract the student’s attention to the letter or symbol on the eye chart.
- **Pseudoisochromatic plates** – used to check red-green color vision. A paint brush or cotton swab may be used for pointing or tracing the image (this is useful with younger students).

## ***Setting Up the Screening Area***

In the planning of a vision screening program, attention should be given to the room selection in which to screen. Whenever possible, the health office should be used. It is also important to consider lighting; bright sunlight should be filtered and behind the student. Since some students may be easily distracted, it is advisable to select a room or area that is quiet and free from interruptions. The room needs to include appropriate space to set up screening components. If possible, a waiting area should be included for those students awaiting screening. Ideally, the site selected should not have multiple uses so as not to distract the student during screening at any time before completion. This is not always possible in a school health office and cooperation of the building administration in supporting the health office staff during screening procedures is essential to a smooth process.

1. Place a Sloan letter chart, Snellen chart, or LEA/HOTV chart on a light-colored, uncluttered wall with the 20/40 line of chart at the eye level of the student to be screened.
2. Measure the distance from the chart to where the student will sit or stand and use a piece of tape to mark the student’s place. Maintain an unobstructed floor space between the tape and the eye chart.
  - a. All testing should be at ten feet. If using a Snellen chart at ten feet, the following adjustment in acuity must be made:
    - i. All acuities would then need to be doubled to adjust for the distance (a 20/40 line read at 10 feet would be 20/80 acuity)
3. Arrange table and chairs for screening and recording. Keep out of line of eye chart and ten feet floor mark.
4. Ensure normal lighting on the chart and avoid undue glare.
5. Follow the manufacturer’s instructions if using mechanical vision testers for distance and near vision testing.

## ***Student Interaction when Vision Screening***

### **Explanation to students**

It is important that students understand the purpose of the vision screening and their role in the activity. School health personnel should plan time to review the purpose of periodic vision screening and demonstrate screening procedures prior to the screening for early elementary students. Instruction should emphasize the value of early and periodic screening, the relationship of health and safety practices to the prevention of eye diseases and injuries, the prompt medical treatment of correctable and/or reversible eye health conditions, and environmental factors which are conducive to the maintenance of eye health and safety. Teaching may be enhanced by notifying families of the upcoming screening and asking them to discuss the process with their child, particularly with younger students.

During the procedure, instructions to students should be simple and clear. Students should be told they may not be able to see everything. Students should understand that they must tell you when they cannot see the letters or symbols. The word "test" implies the "need to pass". Using the term "vision screening" may help to prevent students from attempting to guess when they are unable to see the letters or symbols. An alternative to the Sloan letter or Snellen acuity chart for young students would be the use of the HOTV or LEA symbols chart. (The examiner should use the most reliable chart that the student is capable of consistently recognizing.) Sensitivity to individual student needs along with use of appropriate screening procedures, orientation, familiar personnel, and establishing rapport with the student will assist in the success of screening activities.

### **Observations of the student**

When a student is scheduled for screening, whether based on referral or scheduled screening, teacher observations of visual behavior should be gathered and reviewed as warranted. A teacher may also refer a student for a professional eye exam if they feel the student may be having difficulties based on their observations. The teacher should put the referral in writing, including the behaviors they observed that prompted the referral and send to the parent/guardian to be shared with the eye care professional. A copy of this referral letter to the parent is placed in the student's health record. When feasible, school health personnel should observe the student performing a variety of visual tasks.

## ***Vision Screening Procedure***

A sample vision screening results form to retain in school records can be found in [Appendix A](#).

### **Distance Visual Acuity**

1. The distance from the front of the student's face to the chart should be ten feet for the Sloan letter chart and HOTV/LEA charts in Pre-K. Snellen acuity should be calibrated for ten feet as well.
2. Check student to be sure the student understands how to respond to the figures on the displayed chart. Ensure the student can describe the letters or symbols. Move the student closer to the chart for orientation, if necessary. Test both eyes by pointing to a few letters to be sure the student can be screened.
3. Test right (R) eye first; then left (L) eye. Both eyes must be tested individually.
4. If student wears glasses or contact lenses, screen with glasses or contact lenses in place; or
5. If a student has glasses or contact lenses and is not wearing them, screening should be scheduled for another day with glasses or contact lenses.
6. It is optional to test vision both with and without lenses.

7. Cover student's left eye with occluder or another object without pressing tightly. Be sure that the student cannot see around the occluding device. Advise the student not to squint, tilt head, or close occluded eye.
8. Have the student identify the first letter or symbol on each of the rows until difficulty is had or the lowest acuity line is reached, then attempt all symbols from left to right on that row. Use the pointer to point from below to each letter. The examiner should not block out or cover the other letters or symbols on the same line.
9. If the first line is read correctly, proceed to the next smaller line. Continue presenting each smaller line of letters through the 20/20 line as long as the student can identify one more than half the line. To pass a line, the student must be able to correctly identify one more than half the letters on the line.
10. If the student fails to read a line, repeat the line in the reverse order. If the line is failed twice, identify the visual acuity as the next higher line read correctly. For example, if the student fails on the 20/30-foot line, record the visual acuity as 20/40 noting the eye tested: R (or O.D.) indicates the right eye, and L (or O.S.) indicates the left eye.
11. Repeat above procedures (4) through (7) with the right eye occluded and record the results for the left eye as instructed in (7).
12. **Failure Criteria:**
  - a. Inability to read 20/30 (Grades K-12) or 20/40 for Pre-K.
  - b. A two-line or greater difference between the two eyes (e.g., right eye 20/20, left eye 20/40).

If the student fails the vision screening, best practice will dictate re-screening another day. If the student initially failed using a mechanical vision tester, the re-screening should be done with a conventional eye chart. If the student fails the re-screening, notify the parent/guardian in writing, with a written recommendation for an eye examination by an eye care professional. Ideally, a telephone call to the parent/guardian should precede the written referral.

### Near Visual Acuity

1. Have the student sit at a table or desk with adequate lighting. Use the Reduced Snellen Chart (or other appropriate eye chart if the student cannot accurately recognize letters) at a distance per the manufacturer's directions.
2. Have the student cover his/her left eye with an occluder and read the letters on the chart from left to right, starting with the smallest line he/she was able to read on the distance acuity chart. Tell the child to keep both eyes open during the testing. Identify the smallest line read correctly, record as near visual acuity for the right eye, noting any facial or postural behaviors.
3. Repeat procedure (2) with right eye occluded and record the results as near visual acuity for the left eye.
4. **Failure Criteria:**
  - a. Inability to read 20/30 (Grades K-12) or 20/40 for Pre-K.
  - b. A two-line or greater difference between the two eyes (e.g., right eye 20/20, left eye 20/40).

If the student fails the vision screening, best practice will dictate re-screening another day. If the student initially failed using a mechanical vision tester, the re-screening should be done with a conventional eye chart. If the student fails the re-screening, notify the parent/guardian in writing with a written recommendation for an eye examination by an eye care professional. Ideally a telephone call to the parent/guardian should precede the written referral.

## Color Perception Screening

1. Follow manufacturer's directions for use of Pseudoisochromatic plates.
  - a. Options include Ishihara plates or ColorDx Pediatric 15 by Konan Medical.
2. Acquaint the student with the screening materials and method of responding.
3. Have the student keep both eyes open and test both eyes together.
4. Show the student how to use a soft, dry paint brush or cotton swab to trace the symbols on the color plate if unable to verbalize symbols.
5. **Failure Criteria:**
  - a. Follow the manufacturer's instructions for what constitutes failure of the screening.

Inform parents/guardian in writing about a possible color vision abnormality and the importance of discussing the matter with their eye care professional. Ideally, a telephone call to the parent/guardian should precede the written referral.

**NOTE:** Pseudoisochromatic plates in mechanical vision testers are not acceptable for use. However, **it is acceptable** to use the Eye Handbook color testing application which is free for iPad and Android tablets.

## Functional Vision Testing: Muscle Balance or Depth Perception

1. Muscle Balance can be tested using a variety of mechanical vision testing instruments (ex: Keystone Telebinocular) or other apparatus
  - a. **Muscle Balance Failure Criteria:**
    - i. > 4 diopters esophoria, >8 diopters exophoria
2. Depth Perception mechanic testing options include Randot or Wirt Circles or Preschool Assessment of Stereopsis with a Smile 2 (PASS Test 2)
  - a. **Depth Perception Failure Criteria: Randot or Wirt Circles**
    - i. 5 years and younger: worse than 250 seconds of arc
    - ii. 6 years and older: worse than 70 seconds of arc
  - b. **Depth Perception Failure Criteria: PASS test 2**
    - i. 3–4-year-old: pass Card B
    - ii. 5-year-old and older: pass Cards B and C

If the student fails the re-screening, notify the parent/guardian in writing, with a recommendation for an examination by an eye care professional. Ideally, a telephone call to the parent/guardian should precede the written referral.

## Parent/Guardian Notification

The success of the program is dependent on the implementation of a systematic follow-up procedure including notification to parent/guardian in writing (refer to [Appendix B](#) for sample forms). School health personnel may precede this with a telephone call, and/or through a parent conference regarding screening results requiring a professional vision examination. Refer the student to an eye care professional. Avoid making any recommendation to a specific individual or a specific class of practitioner (ophthalmologist or optometrist).

1. Advise the parent/guardian to take the evaluation form to the appointment with an eye care professional. Have the completed evaluation form returned to school after the student is