

# Chapter 8

---

## Screening Considerations in the School Setting

• Health Screenings	2
• Vision Screening	8
• Hearing Screening	27
• Dental Health and Screening	33
• Height and Weight Screening	48
• Scoliosis Screening	51

# Health Screenings

---

Students who are hearing and seeing well, and have no dental pain, are more successful in the classroom; they have better attendance, test scores and graduation rates. During the school-age years, lifelong health habits are being established, and primary interventions at this time to screen for and prevent obesity can have the most benefit. Identifying children with scoliosis is also important as this condition may need observation as a child continues to grow. Often it is necessary for the school to assess these areas through screenings.

The information provided in this chapter is to be used in conjunction with the current manuals and guidelines available from the Georgia State Department of Education (DOE) and the Georgia Division of Public Health.

## **Certificate of Vision, Hearing, Dental and Nutrition Screening – Form 3300**

Georgia law requires that every student entering a Georgia public school for the first time, regardless of age, have a Certificate of Vision, Hearing, Dental and Nutrition Screening - (Form 3300) on file. The purpose of the form is to alert parents of problems their children may have in these areas.

Parents must comply with this rule. The screenings reported on the form must have been conducted within one year prior to the time that the child is admitted for the first time to a public school. Any child admitted to a public school without a certificate must provide one to the school within three months following admission. When a child transfers to another school within Georgia, the Certificate and any related follow-up documentation must be forwarded to the new school.

A local health department may accept written records of screenings performed by private practitioners in a state other than Georgia, provided the screenings were conducted within one year prior to the time that the child is admitted for the first time to a Georgia public school. In such a case, the Health Department shall sign and issue a Certificate based upon the received information.

An authorized screener, qualified to conduct the particular tests, must sign each section of the Form 3300. Signature indicates that all rules and regulations for examination and screenings have been followed as well as the recommended screening procedures found in these guidelines. Each section of the form lists who is authorized to sign that particular section.

Refer to additional information on form 3300 in Chapter 1.

## **Additional Screening Considerations**

Some schools require annual mass hearing and vision screenings of certain grades or the entire school. These screenings at schools can be organized and completed by school nurses with the help of volunteers. Screeners should be adequately trained in appropriate screening procedures and follow recommended criteria for referral. Oversight should ensure that screeners are competent. Training should be documented to show that screeners possess the skills necessary to perform screening procedures.

School nurses are among those who possess the necessary skills for the development and implementation of school hearing and vision screening programs at the local level. School screening programs may involve screening an individual student or large numbers of students in a routine health screening.

**To facilitate development, implementation and evaluation of a successful screening program, the following points should be considered:**

- Number of students to be screened
- Minimizing academic interruption
- Availability of trained screening personnel
- Size of groups of students to be screened

- Selection of screening location within schools
- Community resources available for follow-up
- Frequency of routine screening

**In addition to routine or mass screenings, a screening may also be performed when a child:**

- Enters a new school system
- Repeats a grade
- Is being evaluated as part of the Student Support Team (SST) process and per local school district policy
- Is being evaluated for Special Education or required under IDEA (Individuals with Disabilities Education Act) regulations
- Displays symptoms or difficulties with hearing, speech, language or learning which are of concern to parent, guardian, healthcare provider, teacher or other school staff
- Experiences head trauma with loss of consciousness
- Receives exposure to potentially damaging noise levels
- Takes medications that can cause hearing loss
- Begins Driver's Education training

**Parent permission is not required for mass school screening.** However, it is suggested that parents be notified of upcoming screenings via school letter, newsletter, school marquee or other communication strategies. **Permission is required for screening of individual students** who are being screened as part of a special education or Student Support Team (SST) evaluation or because of specific concerns noted by school staff.

## Children with Special Healthcare Needs

Some children have difficulty performing the required tasks necessary for screening. Screening children with physical, emotional, cognitive or developmental delays may require extra planning and preparation. Screening personnel may benefit from the assistance of the child's parent, teacher or paraprofessional.

It is important for screeners to be familiar with ways of proper approach or management techniques needed in order to obtain reliable and valid results.

Some children may be uncomfortable in new and unfamiliar situations. Parents and teachers can incorporate practice sessions to familiarize the child with the process. It may be helpful for some children to observe other children during the screening process. If you are unable to gain cooperation during this initial screening, plan to screen another time.

Other children may be unable to understand or follow directions. They may forget the response they were taught during the demonstration period, or they may respond inappropriately. It is preferable to work with such children on an individual basis. Remember, praise and positive reinforcement work well for all children.

**Below are additional considerations for screening children with special healthcare needs:**

- Does the screening location accommodate children in wheelchairs, walkers and other assistive devices?
- How does the screening accommodate the needs of the technology-dependent child?
- Can the child move his arms?
- Is the environment conducive to the type of screening being given, i.e., quiet room with no extraneous noise for hearing screening?

Sample Special Education Forms – Georgia Department of Education

[doe.k12.ga.us/Curriculum-Instruction-and-Assessment/Special-Education-Services/Pages/Sample-Special-Education-Forms.aspx](http://doe.k12.ga.us/Curriculum-Instruction-and-Assessment/Special-Education-Services/Pages/Sample-Special-Education-Forms.aspx)

## Referral Considerations

Children who do not pass the initial screening should be re-screened. A temporary illness, lack of understanding, fatigue, apprehension, allergies, etc., may cause initial failure. For a school-based screening program, re-screen in two to three weeks. For office and clinical settings, re-screen in six to eight weeks before making a referral.

Referral can be described as the process by which individuals or agencies ensure that action is taken to meet identified problems. The referral process helps match parents/guardians with health professionals and should include the following considerations:

- In a school setting, when a child does not pass the second screening, referral letters should be mailed to the parent or guardian within two weeks. Assess the need for financial assistance with the referral.
- Families should be encouraged to seek professional examination in determining the extent and the need for further care. Where necessary, the health professional should assist the family to access the appropriate professionals in the healthcare system. It is important to identify the individual(s) responsible for ensuring follow-up as appropriate.
- If after approximately four weeks the results of an examination have not been received, mail follow-up letters.
- Documentation of professional examination and any recommended treatment should be communicated to school personnel within three calendar months of the screening date. School nurses should update the school health record and communicate recommendations made during professional examination to teachers and other school personnel involved with the child.
- If families are noncompliant with follow-up, make referrals to the school counselor, school social worker or school principal. If the school personnel are unable to get response from the family, consider a DFACS referral for medical neglect.

When the examination results have been obtained, note the following points:

- Correction is necessary, or if the child has any special needs or concerns.
- Child has been referred for further medical, surgical, hearing or vision evaluations.
- The child requires medication, especially during school hours.
- The child must be referred to Special Education or receive further medical care.

Parents and guardians should communicate findings and recommendations to the child's school. It is in the best interest of the child for the faculty and staff to make any necessary accommodations the child may need, whether or not the child is eligible for Special Education:

- Assist families with breaking down barriers to accessing the medical care their child needs. Keep in contact with parent to ensure the child receives the care he needs.
- *PeachCare for Kids* is a low cost medical insurance for uninsured children who are eligible, and should be recommended for those in need of financial assistance. Parents, healthcare providers, school nurses and other school personnel can assist families in making an application online at [peachcare.org](http://peachcare.org). Call 1-877-GA PEACH for an application. If the child is not eligible for PeachCare, he may be eligible for Medicaid. Access to a computer with the Internet and some basic financial information is all that is needed. The Internet is available free of charge at public libraries. See also Chapter 11 for additional information on PeachCare for Kids.

## Resources

Georgia Department of Public Health – Form 3300 Online Training for the School Nurse  
[dph.georgia.gov/form-3300-school-nurse-trainings](http://dph.georgia.gov/form-3300-school-nurse-trainings)



# Georgia Department of Public Health Form 3300

PLEASE SEE THE INSTRUCTIONS  
ON THE BACK OF THIS FORM

## Certificate of Vision, Hearing, Dental, and Nutrition Screening

FILE THIS FORM WITH THE SCHOOL WHEN YOUR CHILD IS FIRST ENROLLED IN A GEORGIA PUBLIC SCHOOL  
SCREENER CONTACT INFORMATION IS REQUIRED

**Parent/ Guardian Name:** \_\_\_\_\_ first middle last  
**Parent/ Guardian Contact Information:** phone number: \_\_\_\_\_  
 Daytime \_\_\_\_\_  
 Evening phone \_\_\_\_\_  
 Cell phone number: \_\_\_\_\_  
**Child's Name:** \_\_\_\_\_ first middle last  
**Date of Birth:** \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
**Child's Home Address:** \_\_\_\_\_ street \_\_\_\_\_ city \_\_\_\_\_ state \_\_\_\_\_ zip code \_\_\_\_\_ county \_\_\_\_\_  
**Gender:**  Male  Female

**VISION**

Unable to screen (explain why below)

Uses corrective lenses

Worn for testing

Passed /20/30 in each eye for age 6 and above, 20/40 in each eye for below age 6)

Needs further evaluation

Under professional care (explain below)

**Screening completed by:**

Physician

Local Health Department

Optometrist

"Prevent Blindness Georgia" employee

School Registered Nurse

**Screeneer's Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

*I certify that this child has received the above screening.*

**Contact Information:**

**HEARING**

Unable to screen (explain why below)

Uses hearing aid / assistive device

Passed at 500, 1000, 2000, and 4000 Hz with audiometer at 20 or 25 dB

Needs further evaluation

Under professional care (explain below)

**Screening completed by:**

Physician

Local Health Department

Audiologist

Speech-Language Pathologist

School Registered Nurse

**Screeneer's Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

*I certify that this child has received the above screening.*

**Contact Information:**

**DENTAL**

Unable to screen (explain why below)

Normal appearance

Needs further evaluation

Emergency problem observed

Under professional care (explain below)

**Screening completed by:**

Physician

Dentist

Local Health Department Registered Nurse

Registered Dental Hygienist

School Registered Nurse

**Screeneer's Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

*I certify that this child has received the above screening.*

**Contact Information:**

**NUTRITION**

Unable to screen (explain why below)

Height: \_\_\_\_\_ Weight: \_\_\_\_\_

BMI: \_\_\_\_\_ BMI%: \_\_\_\_\_

5<sup>th</sup> to 84<sup>th</sup> percentile - Appropriate for age

< 5<sup>th</sup> percentile - Needs further evaluation

≥ 85<sup>th</sup> percentile - Needs further evaluation

Under professional care (explain below)

**Screening completed by:**

Physician

Local Health Department

Registered Dietician

School Registered Nurse

**Screeneer's Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

*I certify that this child has received the above screening.*

**Contact Information:**

FOR SCHOOL SYSTEM ONLY		Follow up for further evaluation
1 <sup>st</sup> attempt	2 <sup>nd</sup> attempt	Actions reported (if any)
Vision		
Hearing		

**Screeners' Comments:**

Dental				
Nutrition				
Student support services initiated on:				

DATE

-----

-----

# Georgia Department of Public Health Form 3300

## Certificate of Vision, Hearing, Dental, and Nutrition Screening

**Who is required to file this Form 3300?** The parent or guardian of a child who is being admitted for the first time to a public school in Georgia must file a completed Form 3300 with the school when the child is enrolled.

**What is the purpose of Form 3300?** Form 3300 is intended to make sure that every child in Georgia is screened for possible problems with their vision, hearing, teeth and nutrition. The earlier these problems are detected, the earlier parents can seek professional help for the child.

**What screenings are required?** Four different screenings are required: vision, hearing, dental, and nutrition. All four screenings must be conducted and reported on the form before it can be filed with the school.

**Who can conduct the screenings?** Your child's doctor is authorized to conduct all four screenings, as is your local health department. In addition, the vision screening can be conducted by a Georgia licensed optometrist, an employee of Prevent Blindness Georgia trained to conduct vision screening, or a school registered nurse; the hearing screening can be conducted by a Georgia licensed speech-language pathologist or audiologist, or a school registered nurse; the dental screening can be conducted by a Georgia licensed dentist, dental hygienist, or a school registered nurse; and the nutrition screening can be conducted by a Georgia licensed dietician or a school registered nurse. It is not necessary that the same person conduct all four screenings.

**What does "BMI" and "BMI%" mean?** "BMI" means "body mass index." BMI is a way to describe how much a child weighs in relation to height. "BMI percentile" is a way to compare the child's body mass index to the body mass index of a healthy child. If the child's BMI is less than 5% or more than 84% of what is appropriate for his or her age and height, then the child should be taken to a doctor or dietician for a more detailed evaluation. For more information, visit the Centers for Disease Control and Prevention website on child and teen BMI at:

[http://www.cdc.gov/healthyweight/assessing/bmi/childrens\\_bmi/about\\_childrens\\_bmi.html](http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html)

**What should a parent do if the "needs further evaluation" box is checked?** "Needs further evaluation" means that the child may have a problem. If the "needs further evaluation" box is checked, then the parent should take the child to a professional for a more detailed evaluation. Your doctor or local health department may be able to help, or recommend someone who can help.

**What if a Form 3300 was previously filed for the child at another school?** It is only necessary to file the Form 3300 once. If the Form 3300 is filed at the child's first school, and the child later transfers to another school, then the original school is required to forward the Form 3300 to the new school.

# Vision Screening

---

Children who do not see well do not learn at their optimum level. Young children may have, or be at risk for, amblyopia or lazy eye blindness and may literally lose vision in one eye if the problem is not diagnosed and treated by age six. For other children, vision changes may begin in third, fourth, fifth and sixth grade during growth spurts. It is important to identify these children and make sure parents are aware that their child needs a visit to the eye doctor and/or glasses. Many times a problem comes as a complete surprise to both child and parent. Careful follow-up for those identified children by the nurse can ensure that needed medical care is obtained with referrals (for assistance) if necessary.

When a child does not pass the second screening, send a referral letter home to the parent or guardian within one week. Contact the parent within one week to confirm receipt of the referral letter, discuss concerns and encourage follow-up. A sample referral letter is located at the end of this section.

If a child is unable to participate in routine vision screening procedures, or the results are inconclusive, refer the child to an eye care professional.

Parents should check insurance requirements to see if a referral is needed to see an ophthalmologist or optometrist.

For the most current and comprehensive updates on vision recommendations in Georgia and resources for school nurses, please visit the Prevent Blindness Georgia website at [georgia.preventblindness.org/childrens-vision-screening-training-certification-supplies](https://georgia.preventblindness.org/childrens-vision-screening-training-certification-supplies)

This link will also carry you to the document "Our Vision for Children's Vision: A National Call to Action for the Advancement of Children's Vision and Eye Health," which provides great resources such as "Common Children's Vision and Eye Problems" and "Eye Safety Tips."

## Vision Screening Training

On the following pages, you will find the "Vision Screening Training for Georgia's School Nurses," a training course provided by Prevent Blindness Georgia. Prevent Blindness was established in 1965 as an affiliate of Prevent Blindness America, the nation's leading volunteer eye health and safety organization. With a focus on promoting a continuum of vision care, Prevent Blindness Georgia touches the lives of thousands of people each year through vision screening, vision screening training, public education and vision services for people in need.

The training document which follows includes:

- Importance of vision screening
- Signs and symptoms of vision problems
- Guidelines for specific tests and tools to screen various age groups
- Instructions for setting up screening area and conducting screenings on all age groups
- Interpreting screening results
- Recommendations for periodicity of screening
- Follow-up on children who fail the screening
- List of resources for information about eye health and vision problems, and for assistance for students



## Vision Screening Training for Georgia's School Nurses June 2018



Mary Stramiello  
404-537-4986  
[mstramiello@pbga.org](mailto:mstramiello@pbga.org)



## Training Provided by Prevent Blindness Georgia

Mission: prevent blindness and preserve sight through vision screening, training to vision screen, and public education.

## Course Objectives

- Understand importance of vision screening
- Recognize signs of vision problems
- Conduct individual or mass vision screening in a school setting
- Understand which children to rescreen
- Interpret screening results for referral
- Follow-up on children who fail the screening

## Why screen children's vision?

- Vision problems are the leading handicap of childhood
  - One in twenty preschool children has a vision problem
  - One in four school-age children has a vision problem
- Children are not always aware of vision problems
- 80% of what a child learns is visual
- Vision problems can lead to loss of sight, learning difficulties or delayed development

## Screening vs. Examination

### Screening

- Identifies need for eye exam
- Identifies problems early
- Provides eye health education opportunity
- Results in referral to eye care professional

### Examination

- Examines subject for eye disorders/diseases
- Diagnoses problems
- Prescribes treatment
- Can be completed only by an ophthalmologist or an optometrist

**Screening is not, and does not replace, an eye exam**

## Implementing Vision Screening in a School Setting

- Identify and train screeners
- Obtain screening tools and supplies
- Obtain/prepare documentation forms and parent notification letters
- Select screening location
- Define re-screening and follow-up procedures

## Recommended Frequency of Vision Screenings\*

- School-based mass screenings
  - Every year pre-k through 1st grade and
  - Grades 3, 5, 7 and 10
- As part of well-child visits in public health setting
  - Annually ages 3-6
  - Grades 3, 5, 7 and 10
- As needed for initial entry to public school
- As needed for special education evaluations

7

\*Same as Bright Futures Guidelines

## Parent Authorization for School-Based Vision Screenings

- *Mass* vision screening
  - Permission not required
  - Notification of parents suggested
- *Individual* screening/child being singled out because of teacher concern or special education evaluation
  - Permission required

8

## General Screening Supplies Checklist

- Documentation forms
- Pens
- Screening instructions
- Pointer
- Measuring tape
- Clipboard
- Masking tape
- Disinfectant wipes
- Occluders
- Happy Feet (*optional*)
- Cotton swabs (*color vision only*)

9

## Space Requirements

- Quiet area free from distractions
- Uncluttered, non-patterned wall
- Unobstructed pathway from test tool to child (at least 12 feet for 10 foot distance acuity test)
- Normal lighting without shadows or glare on test card or chart

10

## Minimize Cross-Contamination

- Follow precautions for infection control
- Disinfect your hands **before** screening
- Clean occluder glasses/paddle before each child or use one disposable occluder per child
- Defer screening sick children

11

## Screening Components When to conduct each test

- Every Screening
  - Observation
  - Distance visual acuity test
  - Report to parents and follow-up on referrals
- At school entry only
  - + Color vision
- Special education evaluation
  - + Near visual acuity

12

## Screening Steps

- Confirm child's age to determine particular acuity tool, criteria and other tests to conduct
- Determine whether child wears prescription glasses or contact lenses and note whether they are being worn
- Document:
  - Symptoms or concerns reported by teacher
  - Known vision problems or family history of vision problems
  - Known risk factors for vision disorders

13

## Handling Difficult Screening Situations

- Difficult-to-screen or “untestable” children may be more likely to have vision problems
- Make screening a “game” not a “test”
- Rescreen same day if possible, within one month at most
- Refer for eye exam if child cannot be rescreened within 1 month



14

## Screening Steps

- Observe for signs & symptoms of vision problems
- Complete distance acuity screening
- Screen for color deficiency, if needed
- Complete near acuity only if needed for Special Ed evaluation
- Re-screen, as necessary, within one month
- Report to parents and make referrals to eye care professional as appropriate
- Follow-up on referrals

15

## Setup of Screening Area 10' Distance Acuity Chart

- Following instructions apply to screening school-aged children (6 years +) using a 10' distance chart, regardless of specific chart used
- If you are currently using HOTV chart for school-aged children, switch to Sloan letter chart as soon as possible
- Place chart on uncluttered, well-lighted wall
- Hang with 20/32 line at average eye level of children being screened

16

## Setup of Screening Area 10' Distance Acuity Chart

- Place a strip of masking tape on floor 10 feet from chart and centered in front of chart
- Place pointer, pen and documentation forms close to chart
- Place occluders, key card, disinfectant wipes and trash basket close by tape mark on floor (at 10')

17

## Procedures for Screening 10' Distance Acuity Chart

- Screen with prescription glasses
- Position child with arches of feet, or center of head if in wheelchair, on tape 10 feet from chart
- Practice on top line with both eyes open
- Positively reinforce each response, if needed
- To begin screening, instruct child to cover left eye with occluder

18

## Procedures for Screening 10' Distance Acuity Chart

- Starting at 20/80 line, ask child to read down outside edge of chart to pass line (20/32), then across the line. Use lower right section of chart for right eye.
- Child must read more than half of letters to pass line
- Child should continue reading lines left to right or right to left to the smallest line he/she can read
- Acuity is lowest line successfully completed
- Record acuity of right eye

19

## Procedures for Screening 10' Distance Acuity Chart

- Ask child to cover right eye and repeat procedure, starting from opposite side of 20/80 line. Use lower left section of chart for left eye.
- Record acuity of left eye
- Record observations

20

## Procedures for Screening 10' Distance Acuity Chart

- Constantly watch for proper occlusion, position of feet and ABC's while screening
- Older children (ages 10+) should be able to hold the occluder, but adult should help younger children, as necessary
- Older children should be able to read chart with screener pointing only to pass line, not each letter

21

## Standard for Rescreening/Referral 10' Distance Acuity Chart

- Always re-screen before referring
- Re-screen within one month
- Refer if child cannot be rescreened within one month

22

## Signs and Symptoms of Eye and Vision Problems

**Types of referable signs that screener may observe or parents/teachers may have noted:**

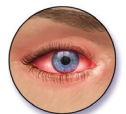
- Appearance of child's eyes
- Behavior and body language
- Complaints by child



23

## ABC's of Detection Appearance Signs

- Eyes cross or turn out or drift
- Eyes are reddened or continually watery
- Eyelids are red, crusted or swollen
- Eyelid droops
- Sty or infection on eyelid
- Unequal pupil sizes
- Eyes are in constant motion
- One or both eyes look cloudy
- White pupil
- Eye appears to be injured (red, bloodshot, blackened, bruised, swollen, cut/scratched)



**NOTE – Postpone screening if child is sick or has conjunctivitis**

24

## ABC's of Detection Behavior Signs

- Becomes rigid while viewing distant objects
- Tilts head to one side most of the time
- Squints or frowns when trying to focus
- Blinks excessively or rarely blinks
- Thrusts head forward or backward when focusing or holds head in unusual way
- Closes or covers one eye when doing near work
- Rubs eyes excessively
- Is unusually awkward, clumsy or uncoordinated

25

## ABC's of Detection More Behavior Signs

- Brings objects close to eyes; moves head close to desk or screen when reading
- Sits close to TV
- Has poor eye-hand coordination
- Uses finger to keep place while reading
- Has short attention span
- Reverses letters and words
- Is irritable or restless during sustained near work or visual concentration

26

## ABC's of Detection Complaint Signs

- Headaches, nausea or dizziness
- Letters blur or lines run together or jump
- Eyes itch, burn or ache
- Vision blurred after close work
- Cannot see well or cannot see board
- Sees double
- Sensitivity to light

27

## ABC's of Detection

- You may refer based on observation alone
- Ask questions and use common sense – for example, don't refer for runny eyes caused by cold or allergies
- Educate other staff about signs of possible vision problems

28

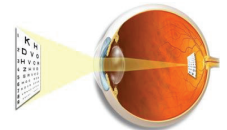
## Nature of Sight

- Vision is learned, from birth through age 7-8, as brain receives normal visual experiences from each eye
- If brain receives two confusing images, it may suppress vision from one eye by about age four resulting in vision loss if not treated by about age six
- Brain merges images from the two eyes, via the optic nerves, to enable depth perception

## Common Eye Problems: Refractive Error

### Defect in optics of eye resulting in lack of precise focus of light rays on retina causing blurred image

- Nearsightedness (Myopia) – near vision clear but distant vision blurry
- Farsightedness (Hyperopia) – distant vision clear but near objects blur
- Astigmatism - light rays scatter due to uneven surface of lens or shape of eyeball



## Common Eye Problems Myopia (Nearsightedness)

Clear vision



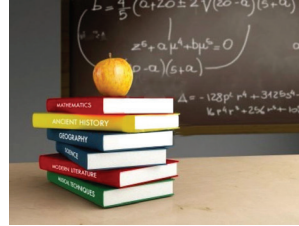
What myopia looks like



31

## Common Eye Problems Hyperopia (Farsightedness)

Clear vision



What hyperopia looks like



32

## Common Eye Problems Astigmatism

Clear vision



What astigmatism looks like



33

## Common Eye Problems Strabismus



Esotropia

Hypertropia



Exotropia



34

## Common Eye Problems: Strabismus

### Eyes that are misaligned or not straight

- Affects one or both eyes
- Constant, intermittent, or alternates eyes
- Results in permanent vision loss, if left untreated

## Common Eye Problems Strabismus

- Birth injuries
- Heredity
- Faulty muscle attachments
- Need for glasses
  - Often present in conjunction with cerebral palsy, prematurity, and other neurodevelopmental conditions
- Treatment depends on cause

36

## Common Eye Problems Amblyopia

Reduced vision in an eye that has not had adequate use during childhood

Left eye



Right eye



37

## Amblyopia caused by vision deprivation

Ptosis



Cataract



Cyst



38

## Common Eye Problems: Amblyopia



Reduced vision in an eye that has not received adequate use during early childhood

- Affects 2-5% of general population
- Permanent vision loss occurs if not treated early
- Caused by unequal refractive error, strabismus or other factors such as ptosis or cataract
- Treatment may be glasses, surgery and/or patching

## Amblyopia Treatment – 2 Steps

- **Step 1 – Treat underlying problem**
  - Glasses or contact lenses for refractive errors
  - Patch, eye drops or surgery for strabismus
- **Step 2 – Retrain brain by covering stronger eye**
  - Patch, occlusive eye drops, occlusive contact lens

If not treated early enough, an amblyopic eye may never develop good vision and may become functionally blind



40

## Visual Acuity

Quantifiable measure of ability to identify black symbols on white background at standardized distance. Indicates clarity of vision.

- 20 = Distance from child to chart
- 60 = Distance at which normal eye reads the line

Child with 20/60 vision sees as if three times farther from chart than a child with normal vision.

41

## National Center for Children's Vision and Eye Health (NCCVEH) Recommendations

- Recommended pass criteria
  - = 20/32 for 6 year olds and older
  - = 20/40 for 4 and 5 year olds
  - = 20/50 for 3 year olds

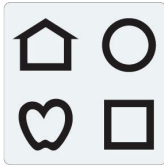
\*If child sees two or more lines different with one eye than the other this would result in a Referral even if the two line difference is inside the passing criteria.

42

## National Center for Children's Vision and Eye Health (NCCVEH) Recommendations for Screening Children Ages 3-5

- Test should meet national and international chart design guidelines
- Recommended optotypes (shapes):

Lea Symbols®



HOTV letters



43

## NCCVEH Recommendations

- Vision in Preschoolers (VIP) - 5 foot test
- EyeE Check – 5 foot test
  - for 3 year olds
  - for 4 and 5 year olds (separate book)
- Sight Line - 10 foot test



VIP



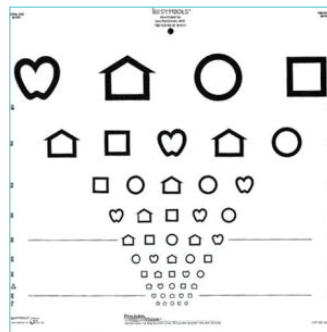
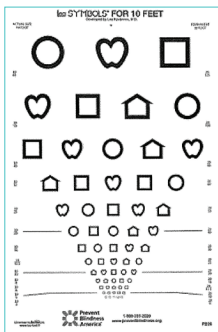
EyeE Check



Sight Line

44

## Lea Symbols® 10' Chart Replace with a recommended tool as needed



45

## Distance Visual Acuity Screening 6 years and older, Sloan Letters 10' Chart



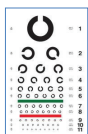
46

## Distance Visual Acuity Tests Unacceptable for All Ages

If you are still using one of charts below, replace it with one of recommended tools on previous slides **as soon as possible** to insure accuracy of screening results



Shellen



Landolt C



Tumbling E



Allen Figures



Lighthouse



Kindergarten

47

## Recommended Occluders

### Acceptable

- Eye patch
- 2" hypoallergenic surgical tape
- Occluder glasses with opaque or frosted lenses
- Cover paddle or "Mardi Gras" mask for children 10 and older ONLY



48



## Unacceptable Occluders

### Unacceptable

- Hand
- Paper cup
- Paper occluder or tissue
- Cover paddle or "Mardi Gras" mask (unless 10+ years)



- Convert to "acceptable" occluder as soon as possible

49

## Lea Symbols Near Vision Card For Special Education Evaluations Only



## Re-screening and Referral

- Re-screen if child fails any test
- Re-screen only on test(s) failed
- Refer for any test failed except color vision
- Parents/teachers should be notified of color vision deficiency; there is no treatment but eye doctor can identify particular colors child has difficulty distinguishing
- You may refer based on observation alone

## Follow-Up

- Why screen any children unless they see eye doctor for diagnoses of their vision problems and receive required treatment?
- Develop systematic follow-up plan for maximum success
- Identify resources and systematic way to communicate with parents

## Need screening tools?

- Go to [www.good-lite.com](http://www.good-lite.com)
  - EyE Check
    - 20/50 Eye Check for 3 year olds – 252111
    - 20/40 Eye Check for 4 and 5 year olds – 252100
    - both - 252155
  - Sight Line – 259520
  - Various occluder glasses – 548500, 587200, 871000, 461000, 461100, 460800, 460900
  - Paddle occluders, set of 6 – 750000, 751000
- Go to [www.bernell.com](http://www.bernell.com)
  - Color Vision Testing Made Easy/ColorDx – CVT1

53

## Need help?

- Contact Prevent Blindness Georgia
  - Answers to vision screening questions
  - Vision screening training
  - Free pre-k vision screening
  - VSP Sight for Student vouchers for students who qualify
  - One Sight vouchers for students who qualify
  - Davis Visionworks vouchers for students who qualify
  - \$25 Medicaid/PeachCare replacement glasses
  - Information about eye problems and diseases
- Call 404-266-2020, 404-537-4986, 1-800-477-4448
- Visit [www.pbga.org](http://www.pbga.org) Visit [www.pbga.org](http://www.pbga.org) and [www.gakids2020.org](http://www.gakids2020.org)
- Email [mstrammiello@pbga.org](mailto:mstrammiello@pbga.org)



54

## Overview of School-Based Vision Screening Programs

The goal of a school-based vision screening program is to identify children who cannot see well enough to learn at their optimum level. In preschoolers, we are looking for children who have, or who are at risk of developing amblyopia, a condition which needs to be identified and treated early to minimize permanent vision loss. In school-aged children, we hope to identify children with as yet undiagnosed amblyopia or other early childhood vision disorders that may still respond to treatment. We are also looking for other vision changes that may begin in third, fourth or fifth grade during growth spurts. It is important to identify these children and make sure parents are aware that their child needs to visit an eye doctor for a comprehensive eye exam. Many times a problem comes as a complete surprise to both child and parent. Careful follow-up by the school nurse of children who failed a screening can ensure that needed medical care is obtained and referrals (for assistance) are provided if necessary.

When a child does not pass the second screening, send a referral letter home to the parent or guardian within one week. Contact the parent within one week to confirm receipt of the referral letter, discuss concerns and encourage follow-up. A sample referral letter is located at the end of this section.

If a child is unable to participate in routine vision screening procedures, or the results are inconclusive, refer the child to an eye care professional.

Parents should check insurance requirements to see if a referral is needed to see an ophthalmologist or optometrist.

### **A school-based vision screening program should include the following components:**







1. Education and support for parents of children who fail vision screening in ways that are culturally and linguistically appropriate. Materials should emphasize the importance of good vision for their child, the importance of an eye exam if the child failed screening, and the increased risk of vision problems for specified high-risk populations.
2. A follow-up system to track whether a follow-up exam has occurred.
3. Assistance to help parents overcome barriers to follow-up such as education about health care benefits, a list of local eye doctors who will see children, and information about voucher programs that provide assistance with eye exams and/or glasses.
4. Notification to classroom teacher about nature of children's problems, appropriate treatment and educational accommodations they may need.
5. Screenings conducted only by individuals who have completed training and use of screening tools that are valid, reliable, and age-appropriate.
6. Procedures for handling untestable children and children who are at high risk for vision disorders because of other medical conditions.
7. Regular program evaluation that compares screening results to eye exam results, examines and addresses variations in referral rates among screeners, and monitors for adherence to procedures.

### **New Recommendations for Vision Screening**

In January, 2015, three papers written by the National Expert Panel of the National Center for Children's Vision and Eye Health (NCCVEH) were published in *Optometry and Vision Science* (<http://journals.lww.com/optvissci/toc/publishahead>). One of the papers focused specifically on vision screening of children ages three through five (36 months up to less than 72 months.) While most screenings conducted by school nurses are on older children, some school nurses screen lottery-funded pre-k students housed in their schools as well as kindergarteners who have not yet turned six. The new recommendations apply to those younger students. However, much of the information contained in the paper applies to screening school-aged children. Consequently, we have revised screening guidelines for older children as well. Note that these new guidelines include changes to screening instruments and occluders. While your school district may not be able to purchase new supplies and retrain all of your staff immediately, you should begin moving toward the new guidelines where possible and as you need to replace or purchase additional equipment.

## Recommendations for Vision Screening Children Ages 36 Months to less than 72 Months\*

### Distance Visual Acuity Testing

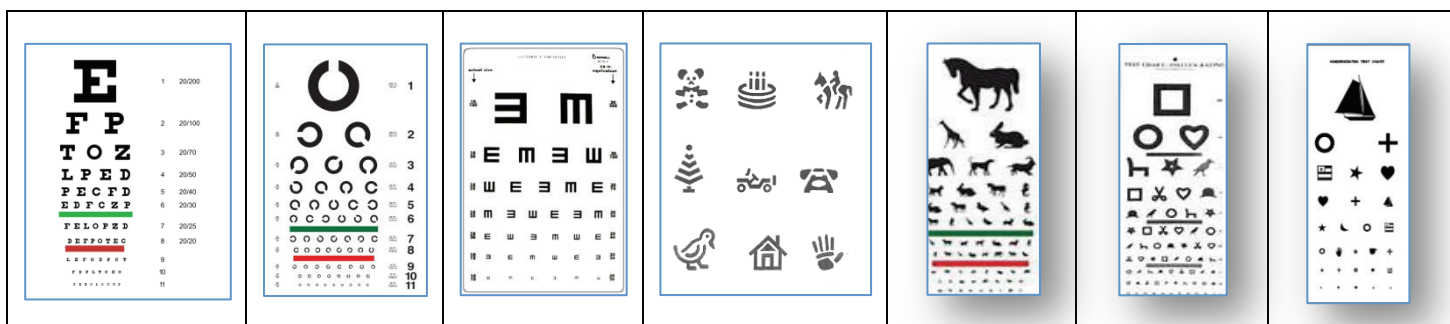
	Best Practice	Acceptable Practice**	Unacceptable
Chart/Optotype	Single Lea Symbol® or HOTV letter surrounded by four flanking bars	A line of 4 or 5 Lea Symbols® or HOTV letters surrounded by rectangular crowding bar (box)	Snellen, Allen figures, Tumbling E, Landolt C (broken wheel), Lighthouse, Kindergarten Eye chart. See Below.
Test Distance	5 feet	10 feet	20 feet Near card Any distance < 5 feet
Passing Monocular Acuity	20/50 for 3 three year olds 20/40 for 4 year olds Child must name or match 3 or 4 of 4 optotypes	20/50 for 3 three year olds 20/40 for 4 year olds Child must name or match more than half of optotypes	Binocular testing
Illumination	Lighted cabinet or computer screen with 80 cd/m@ minimum luminance (suggested not required), lamp if necessary, no glare on test cards or screen	Same as best practice	Glare on test cards or computer screen
Testing aid	Lap card with optotypes for matching	Lap card with optotypes for matching	
Occlusion	Adhesive patch or 2" opaque paper tape 	Specially designed occluder glasses with opaque or frosted lenses 	Hand, tissue, paper cup, cover paddle 
Currently available product (7/20/15)***	VIP Screener single surrounded optotypes (EyeCheck for 4-5 year olds only. Should be available for 3's by August, 2015) 	MassVAT single surrounded lines 	Any of optotypes listed above. See next page for more details. Near vision machine with slides that simulates near distance. 

\*January 2015 issue of *Optometry and Vision Science* can be viewed for free online at <http://journals.lww.com/optvissci/toc/publishahead>.

\*\* Acceptable practices **are** acceptable. The only difference between "best" and "acceptable" practices is that there have been more studies to support the use of items deemed best.

\*\*\* Available at [www.schoolhealth.com/preventblindness](http://www.schoolhealth.com/preventblindness)

### Unacceptable Optotypes/Charts



Young children may not know letters or may not have developed left-right directionality discrimination required by some of these charts. Some of the pictures are too easily recognized (acuity may be over-estimated) while others are culturally biased or outdated making them unrecognizable to some children. These charts also do not meet national and international chart design guidelines in terms of number of optotypes per acuity, spacing between optotypes, spacing between lines and decreasing size progression of optotypes for each acuity.

### Instrument-Based Screening (Autorefraction and Photoscreening)

	Best Practice	Acceptable Practice**	Unacceptable
Instrument	Retinomax SureSight	plusoptiX**** SPOT (added to list after paper published)	MTI Photoscreener Power Refractor II iScreen

### Stereoacuity Screening – *No Longer Recommended Unless Required by School*



Test	PASS (or Stereo Smile II test), if used Random Dot E not recommended
------	---

\*\* Acceptable practices are acceptable. The only difference between “best” and “acceptable” practices is that there have been more studies to support the use of items deemed best.

\*\*\*\* Optimum refractive error referral criteria have yet to be determined. (Factory settings result in low sensitivity and specificity outcomes. Consult with pediatric eye care professional regarding best cutoffs.)

## Vision Screening School-Aged Children (6 and older)

### Distance Visual Acuity

Chart/optotypes	<p>Sloan Letters or LEA NUMBERS® chart that meets national and international chart design:</p> <ul style="list-style-type: none"> <li>- Sloan Letters-<u>proportionally-spaced</u> 9"x14" 10 foot distance chart or Sloan Letters folding chart</li> <li>- LEA NUMBERS® <u>proportionally-spaced</u> 13-line chart, 10' distance or LEA NUMBERS® or folding 15-line chart, 10' distance</li> </ul> <div style="display: flex; justify-content: space-around; align-items: center; margin: 10px 0;"> <div style="text-align: center;">  <p>Sloan Letters</p> </div> <div style="text-align: center;">  <p>LEA NUMBERS®</p> </div> </div> <p>Chart should be proportionally spaced. Avoid charts that are linear or wide-spaced</p> <p>For students who cannot name numbers or letters because of language, development or shyness, use one of tools with lap card mentioned above for preschoolers.</p>
Test distance	10 feet
	Lighted cabinet OR Normal room light, lamp or other light if needed with no glare or shadows on front of tests
Occluders	Adhesive patches, 2-inch surgical tape or frosted/opaque occluder glasses. For children 10+, "Mardi Gras mask" and paddle occluder are acceptable Paper fish, tissues, cups, hands should <b>not</b> be used.
Passing monocular acuity	20/32 No two-line difference for students 6 and older. Must correctly ID more than half of optotypes on each line to pass.
Computer-Based Testing	EyeSpy2020 acceptable
Visual acuity machine such as Titmus, Optec, Keystone View	Insufficient data exists to support their use. Inability to observe child's face and eyes during test is a concern, especially for younger children. If used for older children, use Sloan Letters or LEA NUMBERS® slides

### Stereoacuity Screening – *No Longer Recommended Unless Required by School*

Test	PASS (or Stereo Smile II test), if used Random Dot E not recommended
------	---

### Near Visual Acuity for Special Ed Evaluations Only

Test population	Individual students as required for Special Ed evaluations only <b>NOT</b> recommended for mass screenings.
Test	Sloan Letters Near Card at 16" distance Lea Numbers® Near Card at 16" distance Plus-lens <b>NOT</b> recommended
Passing monocular acuity	20/32 with no two-line difference, even in passing range

### Color Vision

Frequency	Once at age 6 (later only if not previously done)
Test	Color Vision Testing Made Easy Ishihara Color Plates Hardy-Rand-Ritter (HRR)

# Vision Screening Guidelines for Georgia School Nurses

Screening Tool	Ages 3-5	Ages 6-9	Ages 10-18	Screening Notes
VIP 5' Test EyeCheck 5' Test (currently for ages 4-5 only) MASSVAT 10' Test	X			Pre-K and Kindergarten
Sloan Letters or Lea Numbers® 10' Chart		X	X	Use pre-k test above for children unable to read English alphabet or numbers
Color Vision Test		X	X	Test is done one time at age 6. Later if not previously done.
Sloan Letters Near Card Lea Numbers® Near Card		X	X	For Special Ed evaluations only, <b>NOT</b> mass screenings. Not recommended for ages 3-5.
Vision Testers w/Slides		X	X	Inappropriate for ages 3-5 and younger elementary. If used for older students, use Sloan Letters or Lea Numbers® slides with same criteria as chart.
<u>Instruments</u> SureSight Retinomax plusoptiX SPOT	X			Recommended for ages 3-5 only

## **ABC's of Eye and Vision Problems**

### **Refer Child to Eye Doctor if You Have Concerns About the Following**

#### **Appearance of Child's Eyes**

- Eyes cross or turn out or drift
- Eyes are reddened or watery
- Eyelids are red, encrusted or swollen
- Eyelid droops
- Sty or conjunctivitis
- Pupils are different size
- Eyes are in constant motion
- One or both eyes look cloudy

#### **Behavior and Body Language**

- Becomes rigid while viewing distant objects
- Tilts head to one side to look at objects
- Blinks excessively or rarely blinks
- Thrusts head while looking at distant objects
- Closes or covers one eye frequently
- Rubs eyes excessively
- Is unusually awkward
- Squints or frowns when looking at close objects
- Moves head close to desk/screen when reading
- Brings objects close to eyes
- Has short attention span
- Reverses letters and words
- Is abnormally sensitive to light
- Has poor eye/ hand coordination
- Uses finger to keep place while reading
- Is irritable or restless during sustained near work or visual concentration

#### **Complaints from Child**

- Headaches, nausea or dizziness
- Letters blur or lines run together or jump
- Eyes itch, burn or ache
- Vision blurred after close work
- Cannot see well or cannot see board
- Sees double

**Parents and teachers may observe behaviors or hear complaints  
that are not evident during a screening**

## Signs and Symptoms of Vision Problems

Use the ABC's of Detection (on the previous page) to increase awareness for potential signs and symptoms of vision problems by:

- Distributing to teachers
- Making a flyer for office waiting rooms
- Making a flyer for use during open house school registration
- Inserting it in a school newsletter for parents
- Decorating a bulletin board outside the health room at school
- Distributing to parents during preschool and kindergarten registration
- Including on private practitioner sites
- Including on school sites

## Children's Vision Georgia

Children's Vision Georgia is a group of children's vision stakeholders from more than 45 state agencies, nonprofits and professional societies. It was organized by the National Center for Children's Vision and Eye Health under the Maternal and Child Health Bureau. Children's Vision Georgia developed recommendations for the National Center and were implemented as national recommendations when they were released in early 2013.

The National Center for Children's Vision and Eye Health is developing recommendations for:

- National guidelines for vision screening methods for young children
- Core performance measures
- Database for capturing vision screening results

Children's Vision Georgia is developing recommendations for:

- Implementing national guidelines in Georgia
- Periodicity of vision screening for children in Georgia's public schools
- Revising legislation and policies for the Ear, Eye and Dental Form 3300 required for school entry, including clarification on who can sign the 3300 form
- Implementing a plan for effective follow-up for children who fail school entry screenings
- Tools for vision screening children who are being considered for entry into special education programs
- Vision screening methods for young children up to three years old
- Creating a database for mass screening and individual screening results for children

For more information, please visit [pbga.org](http://pbga.org).



## Resources

Focus on Eye Health: A National Summit – Vision Problems in the U.S. (June 20, 2012)

[youtube.com/watch?v=EG24URBeAPQ&feature=plcp](https://www.youtube.com/watch?v=EG24URBeAPQ&feature=plcp)

Georgia Optometric Association

[goaeyes.com/imislive/GOA](https://goaeyes.com/imislive/GOA)

Georgia Society of Ophthalmology

[ga-eyemds.org](https://ga-eyemds.org)

National Center for Children's Vision and Eye Health

[nationalcenter.preventblindness.org](https://nationalcenter.preventblindness.org)

Our Vision for Children's Vision: A National Call to Action for the Advancement of Children's Vision and Eye Health

[georgia.preventblindness.org/sites/default/files/national/documents/OurVisionforChildren\\_2010\\_0.pdf](https://georgia.preventblindness.org/sites/default/files/national/documents/OurVisionforChildren_2010_0.pdf)

Prevent Blindness Georgia™

Answers to vision screening questions, vision screening training, free Pre-K vision screening, VSP Sight for Student vouchers, One Sight vouchers for glasses, \$25 Medicaid/PeachCare replacement glasses for parents who can't afford replacements, information about eye problems and diseases.

404-266-2020, 404-266-1548

[pbga.org](https://pbga.org)

School Health (catalogue for vision screening tools)

[schoolhealth.com/preventblindness](https://schoolhealth.com/preventblindness)

Sight for Students™

This program ensures proper follow-up diagnosis and prescription glasses for eligible students who have failed the vision screening. Visit the Community Partners page for information on partnering with NASN members to help low income children obtain free vision care.

[sightforstudents.org](https://sightforstudents.org)

Vision Preservation and the National Prevention Strategy – A Call to Action

[georgia.preventblindness.org/sites/default/files/national/documents/nps\\_doc3.pdf](https://georgia.preventblindness.org/sites/default/files/national/documents/nps_doc3.pdf)

## Parent/Guardian Notice of Vision Screening Referral

Date \_\_\_\_\_

School \_\_\_\_\_

To the Parent/Guardian of \_\_\_\_\_:

Your child did not pass the vision screening which was recently completed at school. It is recommended that he/she have an eye examination to see if there is a vision problem, which might need professional attention.

You may take your child, at your own expense, to a private eyecare specialist. **If you have Medicaid or Peachcare, it will pay for one eye exam and one pair of eyeglasses per year.** Please take the attached green medical report with you and give it to the eye specialist to complete. The form should be returned to your child's school.

Contact your School Nurse/Health Care Worker at your child's school or the School Social Worker to discuss other options or if you have questions.

Thank you for your cooperation.

Sincerely,

# Hearing Screening

---

Children who do not hear well do not learn at their optimum level. Hearing screening programs screen children for two types of hearing loss—sensorineural hearing loss and conductive hearing loss. Sensory hearing loss may be present at birth or acquired later as a result of illness or injury. Conductive hearing loss is usually from a medical issue, i.e., chronic ear infections.

Most children with severe to profound hearing loss are identified and fit with amplification before they reach school age. However, some children may reach school age without a severe hearing loss being diagnosed and treated. Some children have hearing sensitivity in the borderline normal, mild hearing loss range. Even this “mild” degree of hearing loss can impact communication and learning and may be a contributing factor in the inability to sustain appropriate attention levels. One in every five children has a hearing loss (conductive, sensorineural or mixed) in one or both ears. Children with mild to moderate or unilateral hearing loss are often overlooked or misdiagnosed. Hearing screening programs are often the first to identify these hearing problems.

A licensed audiologist, speech-language pathologist, nurse or physician should provide oversight to the administration of hearing screenings by unlicensed personnel. In the school setting, certified speech-language pathologists may provide oversight.

For children unable to participate in a hearing screening using conditioned play audiometry or sweep audiometry, a referral to an audiologist or physician is indicated. Check to see if your school district employs an audiologist. Generally, a referral from a primary care provider will be required to schedule an appointment with an audiologist in private practice.

Parents should check insurance requirements to see if a referral is needed to see an audiologist.

For hearing referrals, parents may contact the school audiologist in school districts with an audiology program for a hearing evaluation. In an office setting, or local health department, it may be helpful to remind families to return for a re-screen. After making a referral, follow up with the care provider and make sure to request documentation of screening results, outcome of medical examination, referrals to specialist and any ongoing care.

If a child does not pass the second screening, referral letters should be mailed to the parent or guardian within one week. Contact parents within a week to confirm receipt of the letters. A sample referral letter is located at the end of this section.

Children who are followed by an Ear, Nose and Throat physician or audiologist need not participate in a screening program. In place of screening, follow up with parents/guardians to ensure the child continues to receive professional care. Recommend referral and provide follow-up for those children who have not had a professional examination in the last year. Examinations and evaluations should be at least annual or as recommended by their provider. Document date of last audiological evaluation, provider and current recommendations for amplification. Referral and follow-up is indicated for hearing-impaired children without an evaluation within the last year.

In the Missouri Guidelines for Hearing Screening document at the link below, there are some sample forms that can be used.  
[health.mo.gov/living/families/schoolhealth/pdf/HearingScreeningGuidelines.pdf](https://health.mo.gov/living/families/schoolhealth/pdf/HearingScreeningGuidelines.pdf)

The “Childhood Hearing Screening Guidelines - American Academy of Audiology” (September 2011) provides comprehensive information for your review.

[cdc.gov/ncbddd/hearingloss/documents/AAA\\_Childhood%20Hearing%20Guidelines\\_2011.pdf](https://cdc.gov/ncbddd/hearingloss/documents/AAA_Childhood%20Hearing%20Guidelines_2011.pdf)

Visual inspection of the outer ear should be done prior to screening with the audiometer. Do not screen if any of the following are noted. Refer the child to a physician if there are:

**Structural defects of the ear, such as:**

- Abnormal positioning of the ear
- Malformed ear
- Absence of ear
- Extremely narrow ear canal
- Ear pits or tags
- Lobes reddened or infected from piercings
- Swelling around the ear
- Ear pain both internally and externally

**Ear canal abnormalities, such as:**

- Ear drainage
- Odor
- Foreign object
- Swelling

## **Signs and Symptoms of Hearing Problems**

**Physical/Medical Symptoms**

- Frequent earaches/ear infections
- Ear drainage
- Problems with equilibrium (balance)
- Complaints of "noise" (ringing, buzzing, hissing) in ears

**Speech, Language and Voice Symptoms**

- Omission of certain sounds in speech
- Mispronouncing common words
- Other speech defects (including language delay)
- Voice lacks intonation pattern
- Confuses words that sound alike
- Habitually speaks too loudly or too softly

**Behavioral Reaction in the Classroom**

- Requests repetition of words
- Turns one side of head (better ear) toward speaker
- Watches speaker's lips
- Shows strain in taking notes
- Unusual mistakes in taking direction or instructions
- More than normal use of gestures to make wants known
- Frequent mistakes in following verbal directions
- Appears unaware when spoken to, if not watching the speaker
- Inappropriate/irrelevant answers to questions
- Seems more aware of movement than sound
- Frequently watches others before beginning a task and has a tendency to imitate actions of others

**Other signs that may be indicative of impaired hearing**

- Child may appear more intelligent than his work indicates (underachieving)
- Withdrawal
- Irritability
- Temper tantrums
- Low self-esteem

## Hearing Resources

Georgia Department of Public Health – Guidelines for Hearing Screening by Audiometer Training Manual

[dph.georgia.gov/sites/dph.georgia.gov/files/Guidelines\\_for\\_Hearing\\_Screening\\_by\\_Audiometer\\_Training\\_Manual\\_%2012\\_2013\\_0.pdf](http://dph.georgia.gov/sites/dph.georgia.gov/files/Guidelines_for_Hearing_Screening_by_Audiometer_Training_Manual_%2012_2013_0.pdf)

Childhood Hearing Screening Guidelines – American Academy of Audiology (September 2011)

[cdc.gov/ncbddd/hearingloss/documents/AAA\\_Childhood%20Hearing%20Guidelines\\_2011.pdf](http://cdc.gov/ncbddd/hearingloss/documents/AAA_Childhood%20Hearing%20Guidelines_2011.pdf)

Georgia Academy of Audiology

[GeorgiaAudiology.org](http://GeorgiaAudiology.org)

Georgia Hearing Screening Requirements for Newborns and School-aged Children – American Speech-Language-Hearing Association

[asha.org/Advocacy/state/info/GA/Georgia-Hearing-Screening-Requirements/](http://asha.org/Advocacy/state/info/GA/Georgia-Hearing-Screening-Requirements/)

Georgia’s Resource Guide for Families of Children with Hearing Loss

[dph.georgia.gov/sites/dph.georgia.gov/files/related\\_files/site\\_page/Unver8by5UNHSIResourceGuide.pdf](http://dph.georgia.gov/sites/dph.georgia.gov/files/related_files/site_page/Unver8by5UNHSIResourceGuide.pdf)

Georgia Speech-Language-Hearing Association

[gsha.org](http://gsha.org)

Guidelines for Hearing Screening – Missouri Division of Community Health (see sample letters in Appendices)

[health.mo.gov/living/families/schoolhealth/pdf/HearingScreeningGuidelines.pdf](http://health.mo.gov/living/families/schoolhealth/pdf/HearingScreeningGuidelines.pdf)

Early Hearing Detection and Intervention Georgia Resources for Parents and Professionals

[dph.georgia.gov/ehdi-resources](http://dph.georgia.gov/ehdi-resources)

## Vision and Hearing Resources

Children First

[dph.georgia.gov/children-first](http://dph.georgia.gov/children-first)

Georgia Lions Lighthouse Foundation

[lionslighthouse.org](http://lionslighthouse.org)

Georgia Sensory Assistance Project – Services to Youth and Children with Deafblindness

[gsap.coe.uga.edu](http://gsap.coe.uga.edu)

### **State Schools/Programs Managed by the Georgia Department of Education**

The three state schools below specialize in providing quality, comprehensive educational and vocational programs for students with hearing or vision impairments, including students with multiple disabilities. The schools are resource centers on blindness and deafness and offer training and technical assistance to parents, public school programs, community groups and other agencies.

- Atlanta Area School for the Deaf (AASD) – Clarkston, Georgia (day school)  
[aasdweb.com](http://aasdweb.com)
- Georgia Academy for the Blind (GAB) – Macon, Georgia (residential)  
[gabmacon.org/pages/Georgia\\_Academy\\_for\\_the\\_Blind](http://gabmacon.org/pages/Georgia_Academy_for_the_Blind)
- Georgia School for the Deaf (GSD) – Cave Spring, Georgia (residential)  
[gsdweb.org](http://gsdweb.org)
- Georgia PINES (Parent Infant Network for Educational Services)  
[gapines.info](http://gapines.info)

**Parent/Guardian Notice of  
Hearing Screening Referral**

Date \_\_\_\_\_

School \_\_\_\_\_

To the Parent/Guardian of \_\_\_\_\_ :

Your child did not pass the hearing screening which was recently completed at school. It is recommended that he/she have a complete hearing test to see if there is a hearing problem, which might need medical attention.

You may take your child, at your own expense, to a private ear specialist who has a licensed audiologist on staff. Please take the attached pink medical report with you and give it to the audiologist to complete and return it to your child's school.

Thank you for your cooperation. Please call if you have questions.

Sincerely,



# Dental Health and Screening

---

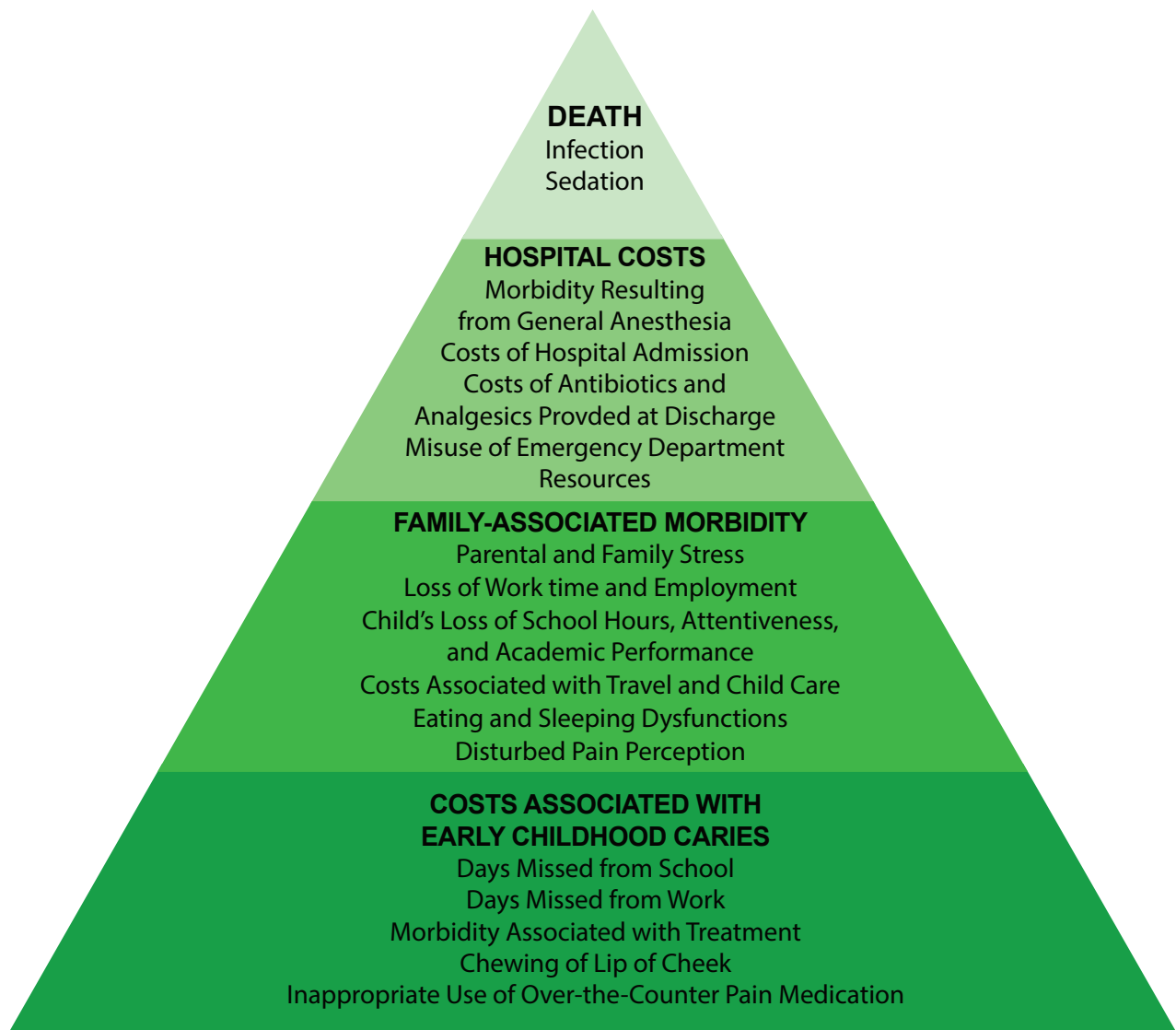
The below information was approved by the Georgia Department of Public Health for submission into the 2016 Georgia School Health Resource Manual. The information was adapted for formatting purposes.

## **Oral Health Facts**

Oral health is an essential and integral component of health throughout life. Poor oral health and untreated infections can have a significant impact on the quality of life for school-aged children. The National Institutes of Dental and Craniofacial Research and the National Education Association cite research showing American children miss 52 million hours of school each year due to oral health problems.

The July 2011 Institute of Medicine (IOM) report, *Improving Access to Oral Health Care for Vulnerable and Underserved Populations*, states that millions of Americans are not receiving dental care because of “persistent and systemic” barriers that disproportionately affect children, seniors, minorities and other vulnerable populations. The IOM report demonstrated the costs of early childhood caries (ECC) in the following figure.

## Improving Access To Oral Healthcare



**FIGURE 2-1**

Proposed early childhood caries morbidity and mortality pyramid.

SOURCE: Cassamassimo et al., 2009 Copyright © 2009 American Dental Association. All rights reserved.

Improving Access to Oral Health Care for Vulnerable and Underserved Populations

[hrsa.gov/sites/default/files/publichealth/clinical/oralhealth/improvingaccess.pdf](https://www.hrsa.gov/sites/default/files/publichealth/clinical/oralhealth/improvingaccess.pdf)

Advancing Oral Health in America

[hrsa.gov/sites/default/files/publichealth/clinical/oralhealth/advancingoralhealth.pdf](https://www.hrsa.gov/sites/default/files/publichealth/clinical/oralhealth/advancingoralhealth.pdf)

Evidence-based studies indicate oral health prevention is cost-effective and saves children from pain and lost days of school. Good oral health is an essential component of overall health and should be integrated into school health services. Most children and young adults spend a majority of their time in school; therefore school nurses can play an important role in promoting oral health. School nurses serve as a significant source of information and participate in prevention programs such as providing dental health education, intervening in dental emergencies, and advocating for the provision of well-balanced nutritious meals.

The goal of the school oral health program is to prevent oral disease and injury. The program should enable every child to maintain his or her own oral health. Dental health education, combined with referral treatment programs, has been shown to be effective in improving oral health. In addition, the school nurse can serve as an advocate for safe practices in all school settings (physical education, team sports, etc.) to prevent dental injuries. In addition, it is important to educate about the transmission of bacteria that cause tooth decay. Minimizing saliva-sharing activities between children limits bacterial transmission. Examples include avoiding the sharing of utensils, food and drinks, lipstick and chapstick.

Dental disease is a significant preventable debilitating disease. Nationally, oral disease affects approximately 98 percent of the entire U.S. population at some point in their lives. Health examination surveys conducted by the National Center for Health Statistics found the most significant problems detected by an examination of children in the U.S. were dental problems in all age groups. Access to dental care is limited for a significant part of the population with 50 percent of Americans failing to receive any dental care each year, according to the IOM report. Dental disease still occurs in well over half the children in Georgia. Preventable oral disease is more common in children from underserved groups and in disabled children.

## **Risk factors for dental decay**

### **Tooth location**

Decay most frequently occurs in the back teeth (molars and premolars). These teeth have lots of grooves, pits and crannies that are great for grinding food—but they can also collect food particles. As a result, they're harder to keep clean than the smoother and more accessible front teeth. Between hard-to-reach back teeth, plaque can build and bacteria can thrive, producing the acid that destroys tooth enamel.

### **Certain foods and drinks**

Some foods and drinks are more likely than others to cause decay. Foods that cling to the teeth for a long time—such as milk, ice cream, honey, table sugar, soda, raisins and other dried fruit, cake, cookies, hard candy, breath mints, dry cereal and chips—are more likely to cause decay than are foods that are easily washed away by saliva. Foods that contain fermentable carbohydrates, (i.e., sugar), provide the fuel bacteria needs to produce the acid that causes cavities. Candy and sweets are common sugary foods, but many beverages including juice and milk as well as items like white bread, are also high in sugar content.

### **Frequent snacking or sipping**

When one steadily snacks or sips sodas, it gives mouth bacteria more fuel to produce acids that attack the teeth and wear them down. Avoiding in between meal snacking or drinks and sticking to regular water is a great habit to develop for prevention.

### **Inadequate brushing**

If one does not clean one's teeth soon after eating and drinking, plaque forms quickly and the first stages of decay can begin. It is recommended that everyone brush at minimum twice a day, ideally morning and right before bed, with a fluoridated toothpaste as soon as the first tooth erupts in the mouth. Children that are too young to spit (approximately 2 and under) can use a "rice grain" amount of toothpaste on the tooth brush, and move up to a "pea" size once they are old enough to effectively spit out the toothpaste (approximately 3 and older).

## **Not getting enough fluoride**

Fluoride is a naturally occurring mineral that helps avoid cavities — and can even reverse the earliest stages of tooth damage—by helping teeth repair themselves. Because of its benefits for teeth, fluoride is now added to many public water supplies. It's also a common ingredient in toothpaste and mouth rinses. If children drink bottled or filtered water that doesn't contain fluoride, they may miss out on its protective benefits. On the other hand, some bottled water may contain added fluoride. If drinking water and tooth care products also contain fluoride, it's possible that babies and children could get too much. Talk to one's dentist—and a child's dentist—about the total amount of fluoride one may be getting from your local water supply and other sources.

## **Younger or older age**

In the United States, cavities are the most common chronic disease among children and teenagers. Older adults are also at higher risk as more people keep their teeth as they age. Over time, teeth can wear down and gums may recede, making teeth more vulnerable to root decay. Tooth roots are naturally covered with a coating called cementum, but cementum is quickly lost when the root surface is exposed. The underlying dentin is softer than enamel and more susceptible to decay. Older adults also may use more medications that can reduce saliva flow, increasing the risk of tooth decay.

## **Dry mouth**

Dry mouth is caused by a lack of saliva, which helps prevent tooth decay by washing away food and plaque from your teeth. Substances found in saliva also help counter the acid produced by decay-producing bacteria and can even help repair early tooth decay. People with chronic dry mouth are at an increased risk of cavities in general, but specifically around the gum line/root surface of teeth. Many individuals who take ongoing medications for chronic conditions are at increased risk for dry mouth. These medications are frequently associated with older adult populations but can be used by younger adults and children. Questioning individuals about dry mouth should always be standard procedure for patients who take long term/ongoing medications.

## **Worn fillings or dental devices**

Over the years, dental fillings can weaken, begin to break down, or develop rough edges. These developments can allow plaque to build up more easily and make it harder to remove. Fillings and dental devices can also leak or stop fitting well, allowing decay to begin underneath them.

## **Eating disorders**

Anorexia and bulimia can lead to significant tooth erosion and cavities. Stomach acid from repeated purging (vomiting) washes over the teeth and begins dissolving the enamel. In addition, people with eating disorders may sip soda or other acidic drinks throughout the day, which also helps create a continual acid bath over the teeth. Eating disorders can also interfere with saliva production.

## **Heartburn**

Gastroesophageal reflux disease (GERD), acid reflux and heartburn can cause stomach acid to flow into the mouth, wearing away the teeth enamel. If a dentist notices enamel loss and doesn't think this loss is caused by grinding teeth, a physician should be consulted to see if gastric reflux is the cause. Untreated reflux can cause significant tooth damage that is costly to correct.

## **Certain cancer treatments**

Having radiation to the head or neck can increase cavity risk by reducing saliva production, which prevents cavity-producing bacteria from being washed away. Certain chemotherapy drugs also tend to cause dry mouth.

## Legal Responsibility of Schools

A dental or oral screening survey is a collection of visual information of the pathology present in groups of people that help identify the needs of a population, from which their "treatment" services can then be planned. Measurement of oral health status and changes in status over time require the screening of samples of the population, and more than one screener usually participates. Standardization of the screeners on the basis of defined criteria reduces the human nature of bias, which exists in part as a result of clinical education and experience. It is the means by which we can help ensure the results of the oral screening are valid (correctly categorizes persons into disease/no disease categories) and reliable (criteria have been applied consistently). Screening in an accurate, consistent way will help in the accurate assessment of a population while still providing a valuable referral to the person for oral conditions requiring follow-up. However, the oral screening is not a substitute for a comprehensive diagnostic oral examination and/or x-rays.

Screening for dental defects should be part of the total health screening as stated as part of "Rules and Regulations for Eye, Ear and Dental Examination of Children Entering Public Schools," i.e., kindergarten and first grade. A high percentage of kindergarten and first grade children are in need of dental care, and each child referred for further dental care will require a dentist's diagnosis of his or her dental problems. Screening guidelines are presented later in this Chapter.

## Dental Screenings

The Georgia Department of Public Health has determined that dental screenings may be performed by registered nurses (RNs) who are public health and school nurses, public health dental hygienists, and dentists and physicians, either private or public. That these designated screeners are not all licensed dentists, in the Department's opinion, in no way violates the Dental Practice Act of Georgia and is not to be construed as the practice of dentistry. The Georgia Board of Dentistry has agreed with this interpretation. Dental hygienists in private practice may provide dental screening for health departments and health fairs as long as no fees are exchanged and an appropriate written notice explaining the screening does not take the place of an examination and is given to the person, parent or guardian. The Board has stated dental assistants, licensed practical nurses (LPNs) or other health professionals may not perform dental screenings.

Screening for dental defects should be part of total health screening, and the personnel should be those involved with the overall responsibility for health defects. Screening for dental disease should require relatively little time. A set routine should be followed so as not to omit necessary aspects of the screening process. If one defect is found, the screening procedure should be terminated and the child referred to the family dentist or to the local health department dentist where available. The law does not require care be provided before a screening certificate can be issued.

## Dental Development & Tooth Eruption

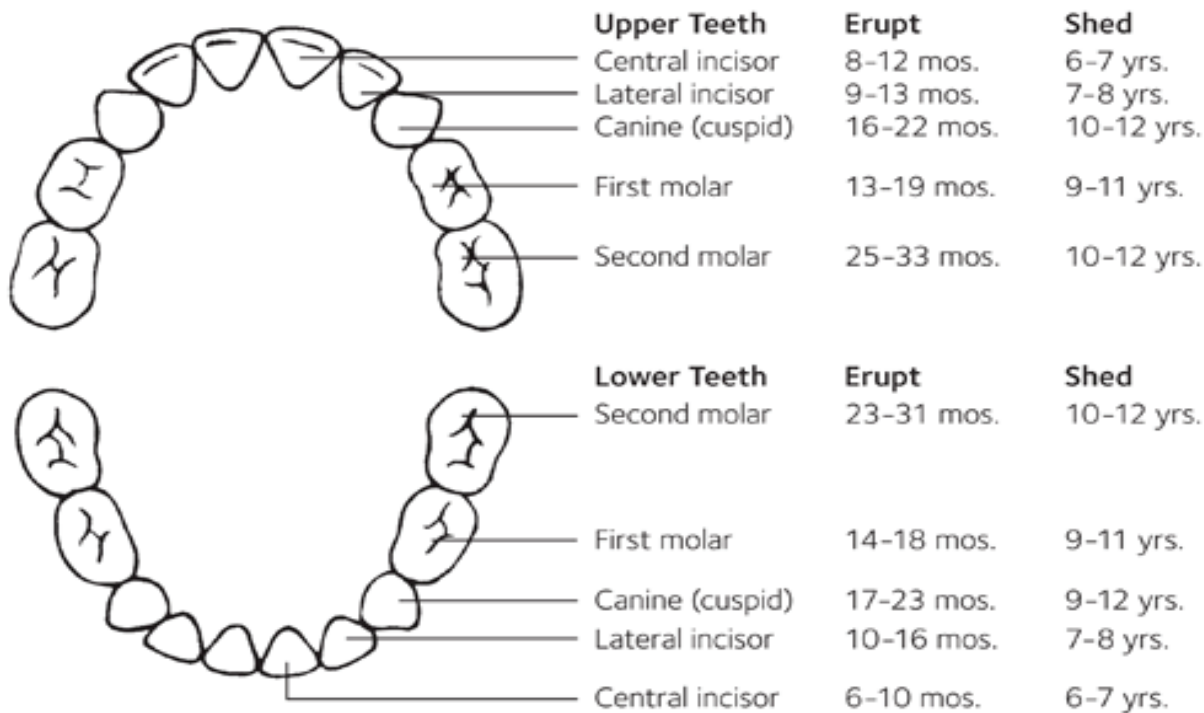
Primary tooth development:

[mouthhealthy.org/~media/MouthHealthy/Files/Kids\\_Section/ADAPrimaryToothDev\\_Eng.pdf?la=en](http://mouthhealthy.org/~media/MouthHealthy/Files/Kids_Section/ADAPrimaryToothDev_Eng.pdf?la=en)

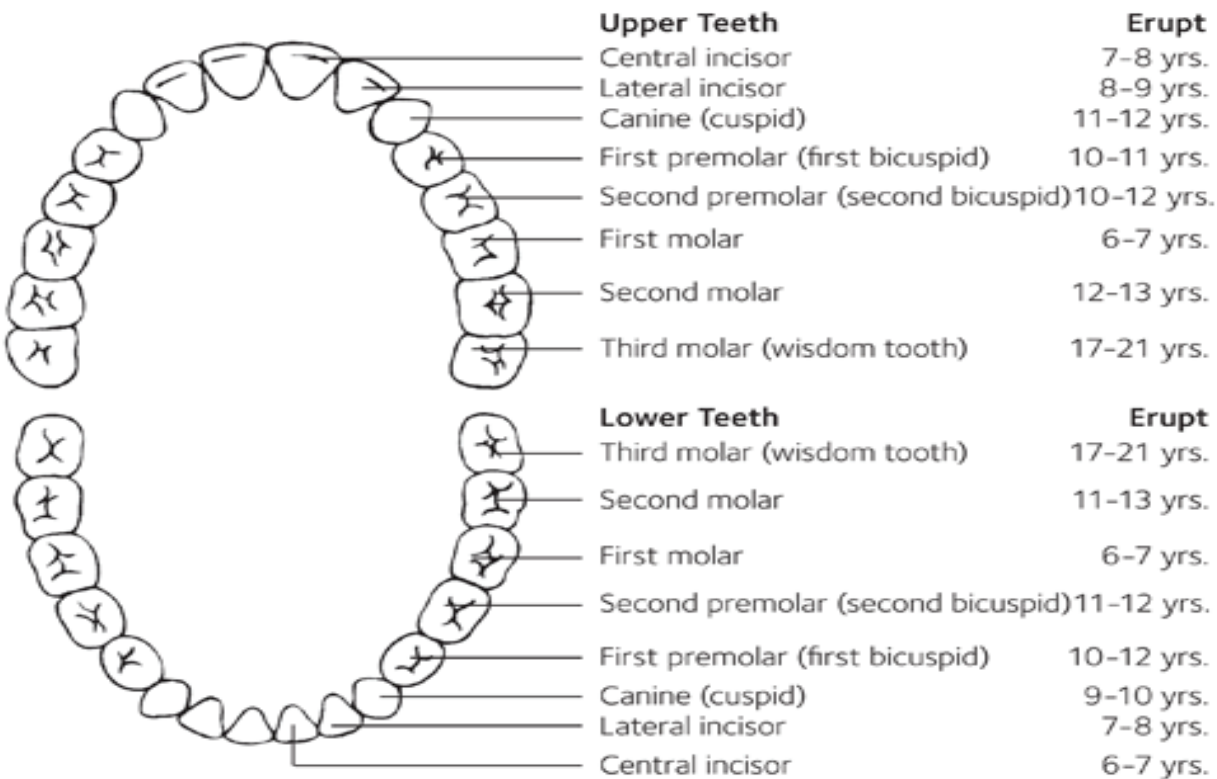
Permanent tooth development:

[mouthhealthy.org/~media/MouthHealthy/Files/Kids\\_Section/ADAPermanentTeethDev\\_Eng.pdf?la=en](http://mouthhealthy.org/~media/MouthHealthy/Files/Kids_Section/ADAPermanentTeethDev_Eng.pdf?la=en)

### Primary Tooth Eruption Chart



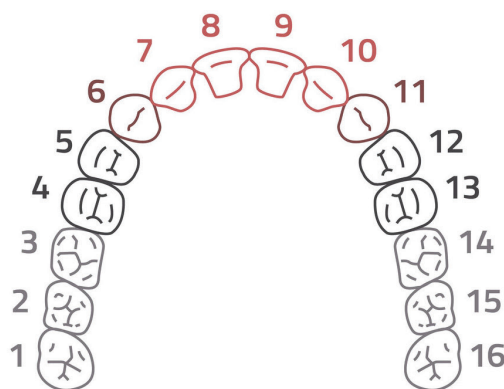
### Permanent Tooth Eruption Chart





UPPER RIGHT

- 1. 3rd Molar (wisdom tooth)
- 2. 2nd Molar (12-year molar)
- 3. 1st Molar (6-year molar)
- 4. 2nd Bicuspid (2nd premolar)
- 5. 1st Bicuspid (1st premolar)
- 6. Cuspid (canine/eye tooth)
- 7. Lateral incisor
- 8. Central incisor

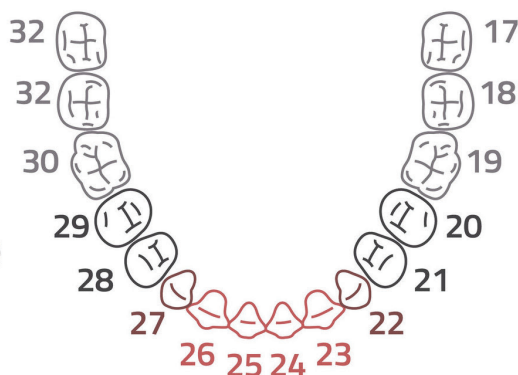


UPPER LEFT

- 9. Central incisor
- 10. Lateral incisor
- 11. Cuspid (canine/eye tooth)
- 12. 1st Bicuspid (1st premolar)
- 13. 2nd Bicuspid (2nd premolar)
- 14. 1st Molar (6-year molar)
- 15. 2nd Molar (12-year molar)
- 16. 3rd Molar (wisdom tooth)

LOWER RIGHT

- 25. Central incisor
- 26. Lateral incisor
- 27. Cuspid (canine/eye tooth)
- 28. 1st Bicuspid (1st premolar)
- 29. 2nd Bicuspid (2nd premolar)
- 30. 1st Molar (6-year molar)
- 31. 2nd Molar (12-year molar)
- 32. 3rd Molar (wisdom tooth)



LOWER LEFT

- 17. 3rd Molar (wisdom tooth)
- 18. 2nd Molar (12-year molar)
- 19. 1st Molar (6-year molar)
- 20. 2nd Bicuspid (2nd premolar)
- 21. 1st Bicuspid (1st premolar)
- 22. Cuspid (canine/eye tooth)
- 23. Lateral incisor
- 24. Central incisor

## Most Common Dental Problems in Children

The most common dental problems children experience are dental caries, periodontal disease and malocclusion. Most of these problems are preventable. Early diagnosis and prompt treatment can eliminate pain, infection and progressive oral diseases.

### Dental Caries

Dental caries, or tooth decay, is the destruction of tooth structure from acid produced by bacteria found in dental plaque. Oral bacteria, food particles, skin cells and other oral debris combine to form a sticky substance called plaque. Plaque will accumulate on the tooth surface if not removed through proper oral hygiene. The bacteria found in plaque feed on sugars found in carbohydrates and produce acid. This acid dissolves the minerals in teeth and initiates the decay process.

In 2011, one in two (52 percent) of third grade children in Georgia had caries experience, and one in five (19 percent) had untreated dental decay. In 2006, 40 percent of non-Hispanic and 51 percent of Hispanic Georgia Head Start Children surveyed had caries experience and 27 percent had untreated decay.

There are four types of dental caries (tooth decay) pit and fissure, smooth surface, root caries and Early Childhood Caries (baby bottle tooth decay). However, 88 percent of dental decay in Georgia is of the pit and fissure type. Plaque accumulates in the pits and grooves of the tooth, and if not treated, it dissolves the enamel and continues to work into the dentin of the tooth. Pit and fissure caries are almost wholly preventable by the use of dental sealants. Other preventive measures include plaque control, education, fluoride varnish application, community water fluoridation and dietary control through nutrition education.

### Periodontal Disease

Two types of periodontal disease include periodontitis and gingivitis.

Warning signs for **periodontal disease** include:

- Gums bleed when brushed
- Gums are red, swollen, tender
- Gums pulled away from teeth
- Pus formation between teeth and gums
- Permanent teeth are loose/ displaced
- Change(s) in the way teeth come together
- Halitosis (bad breath)

**Gingivitis** is reversible through plaque control. Preventive measures for periodontal disease include plaque control, good and consistent dental hygiene habits such as flossing of teeth and good brushing, prompt professional dental care including replacement of ill-fitting crowns and fillings, halting the use of smokeless tobacco and prevention of grinding of teeth. Hormonal changes during puberty or pregnancy can also contribute to gingivitis, but can be controlled with appropriate plaque control.

### Malocclusion

Malocclusion is an abnormality in the teeth or jaw position preventing the upper and lower teeth from biting together properly. Heredity and environmental factors such as tooth size, small jaw, incorrect alignment, premature loss of baby teeth, swallowing abnormalities, thumb and finger sucking and other habitual behaviors can cause malocclusion. Preventive measures include early screening for habitual behaviors, good oral hygiene, regular professional care to prevent premature loss of baby teeth and preventive orthodontic appliances.



## Oral Cancer

Georgia has one of the highest overall mortality rates from oral cancer in the United States, and more Georgians die of oral cancer than all types of uterine cancer. School nurses can play a vital role in health education regarding the causes and warning signs of oral cancer.

Risk factors include:

- Age >46 to 65 years usually associated with tobacco use and alcohol use.
- Younger patients – HPV virus.

Sites for oral cancer include the lips, gums, cheeks, throats, mouth floor and hard or soft palate. Most frequently, symptoms of oral cancer are irritations in the mouth that persist over time. These irritations do not respond to treatment. Preventive measures include health education and cessation programs for the main causes of oral cancer, tobacco and alcohol as well as HPV vaccination.

## Oral/Dental Screening

Accomplishing the preventive health screening service takes time. It is important to begin with a comprehensive review of the medical/dental history and to indicate any changes. As always, you will need to utilize standard precautions (gloves, mask, protective eyewear, etc.) when exposed to bodily fluids.

### History

- Has pain or discomfort been present in or around the oral cavity?
- When was the last dental visit?
- What was the reason for the last dental visit (emergency or routine)?

### Visual

Visual inspection is performed with adequate lighting (penlight, flashlight or window light) and using a tongue blade. Dental personnel may use a mouth mirror, or use instruments furnished by the examiner.

- General external appearance of the face, especially the lower one-third of the face (normal or swollen)
- Soft tissue evaluation
  - Lips
  - Oral mucous membrane including cheeks and tongue
  - Dorsum of the tongue, frenulum (freedom of movement or restricted)
  - Gingiva
- Oral hygiene evaluation (debris)
- Teeth
  - Caries (dental decay)
  - Missing teeth (premature loss)
  - Malocclusion: crowding, crossbite, openbite, protrusion and retrusion
- Habits – finger-sucking, thumb-sucking, lip-sucking, lip-biting, swallowing, tongue-thrusting

## Dental Classifications

For confidentiality, place the **Dental Notice to Parent** in an envelope. If there is a question, round in favor of the patient referral—Green to Yellow, Yellow to Red.

When examined, each patient should be assigned to a dental class whose criteria are:

- **Pass GREEN**

Normal Appearance, No Apparent Need

- No apparent dental care is needed at this time. Continue routine dental visits.
- Non-urgent preventive care needed (e.g., cleaning, dental sealants, severe malocclusion).

- **Fail YELLOW**

Needs Further Professional Attention (dentist examination, non-urgent care needed)

- Early dental care needed due to dental cavities, gum problems.
- Dental visit within three months.
- Treat as Emergency with observed problem. \*\*\*

- **Fail RED**

- Immediate dental care needed due to toothache / infection.
- Dental treatment now.

\*\*\* Emergency failures (such as observed emergent problem or RED dental class criteria) require services to control bleeding, relieve pain, eliminate acute infection; operative procedures which are required to prevent pulpal death and the imminent loss of teeth; treatment of injuries to the teeth or supporting structures (e.g., bone or soft tissues contiguous to the teeth); and palliative therapy for pericoronitis associated with impacted teeth.

**STOP!!! RED-EMERGENCY: See a dentist immediately.**

**If you notice extraoral facial swelling, redness or it is warm to the touch, if there is difficulty breathing/swallowing or the eyes are swollen shut, the child should immediately report to the nearest emergency department.**

For Referrals:

Keep a list of local providers

Medicaid dentist:

[medicaiddentistry.com/georgia.html](http://medicaiddentistry.com/georgia.html)

Georgia Dental Association

Georgia Oral Health Coalition:

[gaohcoalition.org](http://gaohcoalition.org)

Healthy Mothers Healthy Babies

1-800-300-9003

## Dental First Aid For Children

For information on dental first aid for children, refer to Chapter 2.

## Tobacco Use

**Tobacco use is harmful. Often it is deadly. Helping students stay tobacco-free is one of the most important health services that a school nurse can provide.**

According to the CDC, every day, approximately 4,000 American youth aged 12-17 try their first cigarette, and an estimated 1,140 young people become daily cigarette smokers. In 2013, 12.8 percent of Georgia high schools students reported current cigarette use and 14 percent reported current cigar use. In addition, 6.1 percent of high school students reported current smokeless tobacco, with white males reporting the highest (e.g., chewing tobacco, snuff or dip) use.

**According to the CDC, the following Health Effects of Tobacco Use by Young People are outlined:**

- Cigarette smoking by young people leads to immediate and serious health problems including respiratory and non-respiratory effects, addiction to nicotine, and the associated risk of other drug use.
- Smoking at an early age increases the risk of lung cancer. For most smoking-related cancers, the risk rises as the individual continues to smoke.
- Cigarette smoking causes heart disease, stroke, chronic lung disease and cancers of the lung, mouth, pharynx, esophagus and bladder.
- Use of smokeless tobacco causes cancers of the mouth, pharynx and esophagus; gum recession; and an increased risk for heart disease and stroke.
- Smoking cigars increases the risk of oral, laryngeal, esophageal and lung cancers.

### 2013 National Youth Risk Behavior Survey Data for U.S. High School Students

#### CIGARETTE USE

- 41 percent have ever tried cigarette smoking.
- 16 percent smoked cigarettes on at least one day during the 30 days before the survey.
- 6 percent smoked cigarettes on 20 or more days during the 30 days before the survey.
- 4 percent smoked cigarettes on school property during the 30 days before the survey.
- 52 percent did not try to quit smoking cigarettes.

#### OTHER TOBACCO USE

- 9 percent used chewing tobacco, snuff or dip on at least one day during the 30 days before the survey.
- 13 percent smoked cigars, cigarillos or little cigars on at least one day during the 30 days before the survey.

#### ANY TOBACCO USE

- 22 percent smoked cigarettes; smoked cigars, cigarillos or little cigars; or used chewing tobacco, snuff or dip on at least one day during the 30 days before the survey.
- E-cigarettes are a concerning emerging trend that have specifically targeted youth through advertising and still pose significant risk.  
[e-cigarettes.surgeongeneral.gov/](http://e-cigarettes.surgeongeneral.gov/)

## Cigarettes

#### HEALTH EFFECTS

- Kill more Americans each year than alcohol, cocaine, crack, heroin, homicide, suicide, car accidents and AIDS combined.
- Causes cancer (mouth, throat, lung and others), emphysema, high blood pressure, heart disease, premature birth and low birth weight babies.

#### SIGNS OF USE

- Yellow stained teeth
- Bad breath
- Stained fingernails
- Coughing
- Smelly clothes.

#### **Spit Tobacco (chewing tobacco and snuff)**

##### HEALTH EFFECTS

- Causes cancers of the mouth and throat, cardiovascular problems, increased heart rate, receding gums, bad breath, dental cavities and stained teeth.
- Highly addictive.
- Half of all spit tobacco users develop oral lesions (sores) within six months of starting use.

##### SIGNS OF USE

- Worn out circle (from snuff can) in back of pants
- Stained teeth
- Sores in mouth
- Flecks of tobacco in mouth
- Bad breath
- White patches and lumps

#### **What A Nurse Can Do - Institute the Four A's (Ask, Advise, Assist, Arrange)**

The best advice for students is NEVER to start using tobacco.

- **Ask** all students if they use tobacco.
  - **If the answer is no**, commend them and emphasize how important it is for their healthy development into adulthood
  - **If the answer is yes**, then do the following:
- **Advise** the student to stop by discussing the risks, the health impacts and the benefits of quitting; provide the student with tips for quitting;
- **Assist** the student by providing support and follow-up, especially to those attempting to quit;
- **Arrange** follow-up services for habitual users by referral to their healthcare provider.

Call 800-4-CANCER for educational materials and information or contact your local health department for additional information.

The Georgia Tobacco Quit line is a free cessation service for all Georgians 13 years or older, including 5 calls with counselors. A free 10 call program is available to pregnant and postpartum women.

## **Tobacco Resources**

American Lung Association

[lungusa.org](http://lungusa.org)

Child and Teen Tobacco Use – American Cancer Society

[cancer.org/Cancer/CancerCauses/TobaccoCancer/ChildandTeenTobaccoUse/index](http://cancer.org/Cancer/CancerCauses/TobaccoCancer/ChildandTeenTobaccoUse/index)

Georgia Tobacco Quit Line: 1-877-270-STOP

[dph.georgia.gov/ready-quit](http://dph.georgia.gov/ready-quit)

Healthy Use: Tobacco Use and the Health of Young People

[cdc.gov/HealthyYouth/tobacco](http://cdc.gov/HealthyYouth/tobacco)

Preventing Tobacco Use among Youth and Young Adults: A Report of the Surgeon General, 2012

[surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/index.html](http://surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/index.html)

[cdc.gov/tobacco/data\\_statistics/sgr/2012/consumer\\_booklet/pdfs/consumer.pdf](http://cdc.gov/tobacco/data_statistics/sgr/2012/consumer_booklet/pdfs/consumer.pdf)

Tobacco Use and Academic Achievement – CDC

[cdc.gov/HealthyYouth/health\\_and\\_academics/pdf/tobacco\\_use.pdf](http://cdc.gov/HealthyYouth/health_and_academics/pdf/tobacco_use.pdf)

Tobacco Use and Georgia Students – CDC

[cdc.gov/tobacco/data\\_statistics/state\\_data/state\\_highlights/2010/states/georgia/index.htm](http://cdc.gov/tobacco/data_statistics/state_data/state_highlights/2010/states/georgia/index.htm)

Tobacco Use and United States Students

[cdc.gov/healthyschools/tobacco/pdf/us\\_tobacco\\_combo.pdf](http://cdc.gov/healthyschools/tobacco/pdf/us_tobacco_combo.pdf)

Youth Tobacco Cessation Collaborative

[youthtobaccocessation.org](http://youthtobaccocessation.org)

## **Resources**

American Dental Hygienists' Association

[adha.org/kidstuff/index.html](http://adha.org/kidstuff/index.html)

American Dental Association

[ada.org](http://ada.org)

Colgate Oral Pharmaceuticals

[colgateprofessional.com](http://colgateprofessional.com)

Complete information on the Third Grade Survey 2010

[dph.georgia.gov/sites/dph.georgia.gov/files/related\\_files/site\\_page/OralHealthStatusofGeorgia'sChildren.pdf](http://dph.georgia.gov/sites/dph.georgia.gov/files/related_files/site_page/OralHealthStatusofGeorgia'sChildren.pdf)

Oral Health Impact on Learning

[dph.georgia.gov/sites/dph.georgia.gov/files/related\\_files/site\\_page/OralHealthImpactonLearning.pdf](http://dph.georgia.gov/sites/dph.georgia.gov/files/related_files/site_page/OralHealthImpactonLearning.pdf)

Oral Health Prevention Education Resources

[dph.georgia.gov/oral-health](http://dph.georgia.gov/oral-health)

Parents' Guide

[dph.georgia.gov/sites/dph.georgia.gov/files/related\\_files/site\\_page/ParentsGuidetotheGOHPP.pdf](http://dph.georgia.gov/sites/dph.georgia.gov/files/related_files/site_page/ParentsGuidetotheGOHPP.pdf)

School-Based Services

[dph.georgia.gov/sites/dph.georgia.gov/files/related\\_files/site\\_page/School-BasedServices.pdf](http://dph.georgia.gov/sites/dph.georgia.gov/files/related_files/site_page/School-BasedServices.pdf)

National Maternal and Child Health Oral Health Resource Center (MCH)

[mchoralhealth.org](http://mchoralhealth.org)

Proctor and Gamble

[dentalcare.com/en-us/home.aspx](http://dentalcare.com/en-us/home.aspx)

## **DPH Oral Health Program**

Dental (Oral) diseases are a major health concern affecting almost every person in Georgia. Dental caries and periodontal diseases have a huge economic and social cost and can result in serious systemic problems, pain, and suffering. Most oral diseases are preventable, and the Georgia Department of Public Health's, Oral Health Program makes every effort to promote and implement preventive measures for all of Georgia's citizens.

### **What does the Oral Health program do?**

- School-linked Fluoride Supplement Programs for high-risk children – Fluoride mouth rinse or fluoride varnish treatments are provided to children lacking an adequate source of fluoride. Approximately 12,000 school age children received fluoride treatments in fiscal year 2017.
- Dental Sealants – A plastic coating is placed on the chewing surfaces of permanent molar teeth to seal out food and bacteria that cause tooth decay. Dental public health personnel placed more than 20,000 sealants on the permanent molars of Georgia children.
- Dental Health Education – Public Health dental hygienists teach school children the importance of proper brushing, flossing, and good nutrition for good dental health. More than 90,000 school children were reached in fiscal year 2017.
- Community Water Fluoridation – As of December 2017, 96% of Georgia's population using public water systems received fluoridated water. Water fluoridation has been shown to reduce dental decay by 20-40% in fluoridated communities, and results in a savings of \$38 in future dental expenditures for each \$1 invested in fluoridation.

## **How many Georgians are taking advantage of the program?**

In Fiscal Year (FY) 2017, 190,642 dental prevention and treatment services were provided by DPH dental clinics.

- First priority for treatment is given to children who need emergency dental services because of pain or infection, and who are eligible for the Free and Reduced Meal Program (185% Federal Poverty Level).
  
- Basic dental treatment services include:
  - Exams
  - Cleanings
  - Dental sealants
  - Silver (amalgam) and tooth colored (composite) fillings
  - Stainless steel crowns
  - Minor nerve treatments
  - Extractions

## **Where can I go to access services?**

Clinic locations and hours depend on local and state resources available. Information about specific dental services, hours, and location of services can be obtained by visiting the [Georgia Oral Health Coalition – Map of Dental Sites](#) or contact your local Public Health Department. Payment for dental treatment services are based on a sliding fee scale based upon ability to pay. Many health departments have a minimal administrative fee.

Public health dental services are provided to children who are enrolled in Medicaid and PeachCare programs, as well as to low-income patients on a sliding-fee scale (based on the patient's ability to pay).

## **Contact Information**

Oral Health Office  
Georgia Department of Public Health:  
2 Peachtree Street, NW  
11th Floor  
Atlanta, GA 30303  
404-657-2850

# Height and Weight Screening

## Setting for Screening

Each student should be weighed and measured with consideration for privacy. The screener or another adult volunteer should record measurements without commenting on them. Tell the student, “Thanks, you can get off the scale now.” If the student comments negatively on his/her body, it is appropriate to say, “Kids’ bodies come in all sizes and shapes. If you have questions or if other kids are teasing you, let’s talk about it, and see how we can help.” Screening does not involve making a medical diagnosis. Labeling a student as “overweight” or “too thin” after one screening measurement is inappropriate. The child’s healthcare provider will gather additional medical information necessary before making a diagnosis.

## Equipment Needed

- platform scale (balance beam or digital)—calibrate regularly using a known weight
- stadiometer: standing height board, with a moveable headpiece attached to a wall of a room with a level floor
- BMI charts for age and sex, available from the CDC Web site:  
[cdc.gov/growthcharts/cdc\\_charts.htm](http://cdc.gov/growthcharts/cdc_charts.htm)
- calculator with formula, online calculator or other BMI measurement tool
- data recording forms

## Measuring Weight

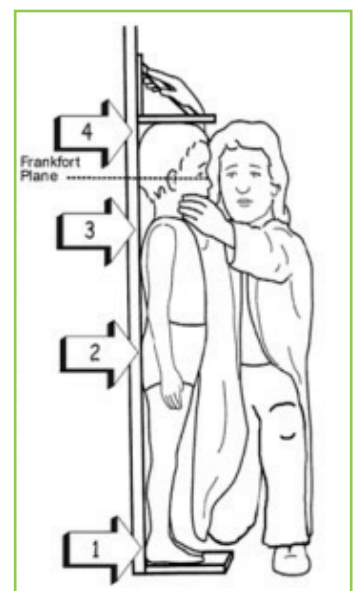
- Have the child remove outer clothing and shoes.
- Place the scale in the “zero” position before the child steps on.
- Ask the child to stand still with both feet in the center of the platform. Consider standing the child with his back to the scale.
- Record the measurement immediately to the nearest 1/4 pound or 100 grams.
- Have the child step off the scale.

### SOURCES FOR ERRORS:

- Use of bathroom scales
- Not checking zero balance
- Not recording values immediately
- Scale placed on carpet
- Feet not in middle of scale
- Misreading measurements

## Measuring Height

- Use a standard height board or stadiometer with a movable headpiece and either a permanent surface to stand on or the entire device is mounted on the wall of a room with a level floor.
- Have the child remove outer clothing, shoes and hats, as well as remove hair accessories that would interfere with the measurement. If this is not possible, make sure to determine where the crown of the head is for the measurement.
- Direct the child to stand erect with shoulders level, hands at sides, legs together and feet flat with heels together. The child’s body should contact the stadiometer at the head, upper back, buttocks and heels.
- Ask the child to move his chin up or down to align his head into the Frankfort plane. This is an





imaginary line between the lower edge of the eye socket and the tragus of the ear (notch above the fleshy cartilage which partly extends over the opening of the ear). This line should be viewed from the side of the child's head at the child's eye level, and should be parallel to the horizontal headpiece and perpendicular to the vertical backpiece. The back of the head may no longer make contact with the board.

- Ask the child to breathe in and hold his position. Lower the headpiece until it firmly touches the crown of the head and is perpendicular to the vertical. Recheck the child's body alignment.
- Record height to the nearest 1/8th inch or 0.1 centimeter.

The information above was adapted from the University of California Berkeley, "Guidelines for Collecting Height and Weight on Children and Adolescents in School Settings" brochure, 2000.

### **To Find the BMI Percentile**

1.  $BMI = \text{weight in pounds} \div \text{height in inches} \div \text{height in inches} \times 703$ .
2. There is an online BMI Percentile Calculator for Child and Teen at [cdc.gov/healthyweight/assessing/bmi/childrens\\_bmi/tool\\_for\\_schools.html](https://cdc.gov/healthyweight/assessing/bmi/childrens_bmi/tool_for_schools.html)
3. Other apparatuses are available such as:
  - BMI slide rule calculator.
4. Once the actual BMI has been calculated, the number can be plotted on one of the CDC BMI Percentile charts for boys and girls

### **Resources**

BMI charts for age and sex, available from the CDC website:

[cdc.gov/growthcharts/cdc\\_charts.htm](https://cdc.gov/growthcharts/cdc_charts.htm)

CDC Body Mass Index

[cdc.gov/nccdphp/dnpha/healthyweight/assessing/bmi/index.htm](https://cdc.gov/nccdphp/dnpha/healthyweight/assessing/bmi/index.htm)

## Height and Weight Screening Form

Name	DOB	Wt	Ht	BMI	BMI %ile	AR	O/U

AR = At Risk of Overweight ( $\geq 85^{\text{th}}$ - $94^{\text{th}}$  %ile) O = Overweight ( $\geq 95^{\text{th}}$ %ile) U = Underweight (< $5^{\text{th}}$  %ile)  
 BMI formula: (Weight in pounds/height in inches/ height in inches) times 703 = BMI

GSHRM Chapter 8 Page 50

# Scoliosis Screening

---

Scoliosis is a physical condition characterized by a lateral deviation of the spine away from the midline of the body. Its cause is unknown in most cases. The amount of curvature is measured in degrees after an X-ray and can vary from mild to severe. Eighty-five percent of idiopathic scoliosis develops in the middle school age group, when rapid growth is occurring. Both girls and boys may be affected, but girls' curves tend to progress five times more frequently.

Treatment ranges from observation by a pediatric orthopedic physician to bracing to corrective surgery in severe cases. After scoliosis is identified or suspected, follow-up is essential to measure the degree of curvature and determine treatment options. Kyphosis, exaggerated roundness and lordosis, or swayback, may occur independently or in conjunction with scoliosis.

Screening for scoliosis is recommended annually during the middle school years, and Georgia mandates screening for a minimum of two grades between the age group of 10 through 15 years, with presumed or passive parental consent (i.e. parent must sign to decline permission to screen). Every student in the designated grade will be screened, unless parents refuse by signing and returning a form that will be sent home.

Screening consists of examining the student's unclothed back. Female students can be screened wearing just a bra above the waist (preferred) or can wear a bathing suit under their clothes for the day of screening. The student will be asked to stand straight and then bend forward while the examiner looks from the front, the back and the side. The screener looks for obvious curves, rib humps or uneven shoulders, waist or hips. Specially-trained PE teachers, clinic personnel or volunteers can complete or assist school nurses with primary screening. Female examiners are preferable for female students. See The Five Step Screening Process.

Students with questionable findings upon initial screenings by volunteers require secondary screenings by the public health authority or other consultants for secondary screening. Referrals can be done easily on the same day, if secondary screeners are available. If signs of scoliosis are confirmed on the secondary screening, notify the parents in writing.

Offer assistance when access to healthcare is a barrier for the family. The child's primary healthcare provider can complete a further examination or refer the child to a specialist. In some areas of the state, parents may set up a tertiary screening exam through a state-funded program if available or through Children's Healthcare of Atlanta Scoliosis Screening clinics (404-785-7553). Additional information for parents, children, teens and healthcare professionals is available at [choa.org/Childrens-Hospital-Services/Orthopaedics/Programs-Services/Scoliosis-Screening](http://choa.org/Childrens-Hospital-Services/Orthopaedics/Programs-Services/Scoliosis-Screening).

## Tips for Setting up a Successful Scoliosis Screening

- Training for volunteers and new staff, as well as a refresher for experienced screeners, should be done shortly before the screening date.
- A video and training manual is available from Children's Healthcare of Atlanta. [choa.org/medical-services/orthopaedics](http://choa.org/medical-services/orthopaedics)
- Schedule the screening so that it does not conflict with testing, field trips, etc.
- Schedule when secondary screeners can be available if possible.
- Send letters/permission forms home one to two weeks before the screening is scheduled. It may be helpful to put information in the school newsletter or on the school website.
- Have teachers collect and save the "Do Not Screen" letters.
- Prepare students the day before screening, discussing the procedure that will be followed. A video for students "A Student's Guide to Scoliosis Screening" is available from Children's Healthcare of Atlanta at 404-785-7553. It also can be viewed online at [choa.org/scoliosis](http://choa.org/scoliosis).
- Remind female students the day before to wear bras or bathing suits under clothes.

- Students or teachers should complete the personal information on the screening forms, and the student should bring the completed form to the screening.
- Many middle schools schedule screenings during PE or exploratory periods on one day, and reschedule lunch periods if necessary to complete screenings.
- It is very important to manage the screening area so that the student's privacy is maintained—utilizing boys' and girls' locker rooms, shower areas, screens, etc. This practice will make screening go more smoothly and quickly.
- The setting chosen for screening should be checked for good lighting, the floor should be free of uneven areas, and the temperature of the room should be comfortable for students who will be undressing.
- It is important to screen with the student's entire back exposed (no T-shirts around the neck; bra is OK). An adequate exam cannot be done otherwise.
- Volunteers will be helpful to control "traffic," call classes down, get students to secondary screeners, etc.

**The following resources are included in this section:**

1. Sample Parent Newsletter
2. Scoliosis Screening Form
3. Scoliosis Screening Letter (English and Spanish)
4. Five Steps Scoliosis Screening Process for Volunteers

## **SAMPLE**

### **Stay ahead of the curve**

During the teenage years, a condition called scoliosis may develop. About 2 percent to 3 percent of children will develop this condition. Scoliosis is a curve of the spine that can be overlooked until it has become very noticeable. When this happens, medical treatment may be required. That is why it is important to have your child checked for scoliosis.

The school will be providing a screening examination as required by state law (20-2-772) to check for this condition. The screening is simple and easy. The children are screened privately by a trained scoliosis screener. You will receive additional information by (email or mail) about scoliosis and how and when the screening will be conducted.

# Scoliosis Screening Form

Grade (circle): 6 7 8 Other: \_\_\_\_\_

Primary screening date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Homeroom: \_\_\_\_\_

Student's last name: \_\_\_\_\_ First name: \_\_\_\_\_ M.I.: \_\_\_\_\_

Date of birth: \_\_\_\_/\_\_\_\_/\_\_\_\_ Race/ethnicity: \_\_\_\_\_  Female  Male

Name of parent/guardian: \_\_\_\_\_

Address: \_\_\_\_\_ Apt. #: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phones: Home (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ Work (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ Cell (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

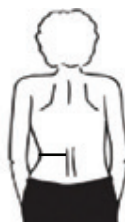
Name of school: \_\_\_\_\_ District: \_\_\_\_\_



Elevated shoulder and shoulder blade, uneven hips



Unequal distance between arm and body



Waist fold difference



Rib prominence (upper back)



Lumbar prominence (lower back)



Kyphosis (more than normal roundness)

	Primary screener		Secondary screener	
	Left	Right	Left	Right
<b>Front</b>				
Shoulder elevated				
Unequal distance arm to body				
Uneven hips				
Rib prominence				
Lumbar prominence				
<b>Back</b>				
Shoulder elevated				
Shoulder blade elevation/prominence				
Waist fold difference				
Unequal distance arm to body				
Rib prominence				
Lumbar prominence				
<b>Side</b>				
Kyphosis—more than normal roundness	Yes	No	Yes	No

Negative \_\_\_\_\_ Refer for second screening \_\_\_\_\_

Screener's name (print) \_\_\_\_\_

Check one:  School nurse  Teacher  Volunteer

Clinic assistant  Other: \_\_\_\_\_

Screener notes: \_\_\_\_\_

**Secondary screening date:** \_\_\_\_/\_\_\_\_/\_\_\_\_

Negative \_\_\_\_\_ Referred \_\_\_\_\_

Screener's name (print) \_\_\_\_\_

Check one:  School nurse  Health professional

Other: \_\_\_\_\_

Screener notes: \_\_\_\_\_

## Scoliosis Screening Letter

Date: \_\_\_\_\_

Dear parent/guardian:

In the next few weeks, \_\_\_\_\_ School will conduct a scoliosis screening program to identify students with suspected curvature of the spine. It is known that two children out of every 100 may have scoliosis. If this condition is detected early and appropriately treated, progressive spine deformity can usually be prevented.

The procedure for screening is a simple test in which the screener (nurse, trained PE teacher or trained parent volunteer) looks at the child's back in the standing position and while bending forward. Boys and girls are screened separately. Girls should wear a bra or bathing suit under their clothes on the day of screening.

If your child has a suspected curvature, you will be notified and asked to take your child to your family physician, a tertiary screening clinic or an orthopedic doctor for further evaluation. If you **do not want** your child to be screened, please complete the requested information below and return it to school.

Sincerely,

Principal

**I DO NOT WANT MY CHILD TO  
BE SCREENED FOR SCOLIOSIS.**

\_\_\_\_\_  
**PRINT NAME OF CHILD**

\_\_\_\_\_  
**PRINT NAME OF PARENT/GUARDIAN**

\_\_\_\_\_  
**SIGNATURE OF PARENT/GUARDIAN**

**DATE:** \_\_\_\_\_

**SCHOOL:**  
\_\_\_\_\_

**TEACHER:**  
\_\_\_\_\_

**MY CHILD IS CURRENTLY UNDER  
CARE/OBSERVATION FOR SPINAL  
PROBLEMS. I UNDERSTAND THAT MY  
CHILD WILL NOT BE RESCREENED.**

\_\_\_\_\_  
**PRINT NAME OF CHILD**

\_\_\_\_\_  
**PRINT NAME OF PARENT/GUARDIAN**

\_\_\_\_\_  
**SIGNATURE OF PARENT/GUARDIAN**

**DATE:** \_\_\_\_\_

**SCHOOL:**  
\_\_\_\_\_

**TEACHER:**  
\_\_\_\_\_

## Scoliosis Screening Letter (Spanish)

Fecha (Date) \_\_\_\_\_

Estimado Padre/Madre o Apoderado/Guardián Legal (Dear parent/guardian):

En las próximas semanas la escuela (School) \_\_\_\_\_ va a conducir una evaluación de la escoliosis para identificar a aquellos estudiantes que puedan tener curvaturas en la espina dorsal. Se sabe que de cada 100 niños, 2 pueden tener la escoliosis. Si esta condición se detecta a tiempo y si se trata apropiadamente, usualmente se puede prevenir la deformidad progresiva de la espina dorsal.

La evaluación que se realiza es un examen simple en el cual la persona que evalúa al niño o niña (la enfermera, maestro de educación física o padre voluntario) observa la espalda del niño/a cuando está parado/a y cuando se inclina hacia adelante. Los niños y las niñas son separados para hacerles la evaluación. Las niñas deben ponerse un sostén o vestido de baño bajo su ropa el día de la evaluación.

Si se sospecha que su niño tiene una curvatura, se le notificará y se le pedirá que lleve a su niño a su doctor de cabecera o a un doctor ortopédico para que lo evalúen más detenidamente. Si usted no quiere que se le haga esta evaluación al niño, por favor llene la información que se le pide abajo y devuelva este formulario a la escuela.

Atentamente,

Rector (Principal)

---

**NO QUIERO QUE SE LE HAGA LA EVALUACIÓN DE LA ESCOLIOSIS A MI NIÑO O NIÑA**  
(I DO NOT WANT MY CHILD TO BE SCREENED FOR SCOLIOSIS.)

\_\_\_\_\_  
NOMBRE DEL ESTUDIANTE (NAME OF STUDENT)

\_\_\_\_\_  
IMPRIMA EL NOMBRE DEL PADRE/MADRE O APODERADO/GUARDIÁN LEGAL  
(PRINT NAME OF PARENT/GUARDIAN NIÑA)

\_\_\_\_\_  
FIRMA DEL PADRE/MADRE O PODERADO/GUARDIÁN LEGAL  
(SIGNATURE OF PARENT/GUARDIAN)

FECHA (DATE): \_\_\_\_\_

ESCUELA (SCHOOL):  
\_\_\_\_\_

MAESTRO (TEACHER):  
\_\_\_\_\_

**MI NIÑO/NIÑA ESTÁ RECIBIENDO CUIDADO O SE LE ESTÁ OBSERVANDO EN EL MOMENTO DEBIDO A SUS PROBLEMAS EN LA ESPINA DORSAL. ENTIENDO QUE NO SE LE VA A HACER LA EVALUACIÓN A MI NIÑO/NIÑA DE NUEVO.**  
(MY CHILD IS CURRENTLY UNDER CARE /OBSERVATION FOR SPINAL PROBLEMS. I UNDERSTAND THAT MY CHILD WILL NOT BE RESCREENED).

\_\_\_\_\_  
NOMBRE DEL ESTUDIANTE (NAME OF STUDENT)

\_\_\_\_\_  
IMPRIMA EL NOMBRE DEL PADRE/MADRE O APODERADO/GUARDIÁN LEGAL  
(PRINT NAME OF PARENT/GUARDIAN)

\_\_\_\_\_  
FIRMA DEL PADRE/MADRE O APODERADO/GUARDIÁN LEGAL  
(SIGNATURE OF PARENT/GUARDIAN)

FECHA (DATE): \_\_\_\_\_

ESCUELA (SCHOOL):  
\_\_\_\_\_

MAESTRO (TEACHER):  
\_\_\_\_\_



## Five-step screening process

*First position: Front, standing position*

### Instructions to the child:

- Face the screener. Put your feet together with weight equally on both legs.
- Breathe in. Let it out, and relax your shoulders. Let your arms hang naturally at their sides.

### Look for:

- Uneven shoulders (Is one shoulder higher?)
- Arm hanging out farther from body on one side
- Hip that appears higher on one side (see Figure 1)

Figure 1

Normal

Abnormal



*Second position: Front, bending forward (Adams Forward Bend Test)*

### Instructions to the child:

- Put your palms together with arms out straight.
- Put your chin on your chest and roll down until your hands touch your feet (see Figure 2).

Note: Encourage the child to continue to roll down as far as possible until her back is parallel to the floor. Have the child repeat the Adams Forward Bend Test if she rolls down too quickly or if she rolls down to one side or the other. The child's hands should be pointing at her big toes.

Figure 3

Normal

Abnormal



Figure 2

### Look for:

- Upper rib prominence on one side
- Lower rib prominence on one side
- Lower back (lumbar) prominence on one side (see Figure 3)

*Third position: Back, standing position*

### Instructions to the child:

- Turn around, (child's back is now to screener), put your feet together with your weight equally on both legs.
- Breathe in. Let it out and relax your shoulders. Let your arms hang naturally at their sides.

### Look for:

- Uneven shoulders (Is one shoulder higher?)
- Shoulder blade (scapula) more prominent than other or one higher

Figure 4

Normal

Abnormal



- Arm hanging out farther from body on one side
- Waist fold deeper on one side (see Figure 4)

*Fourth position: Back, bending away  
(Adams Forward Bend Test)*

**Instructions to the child:**

- Put your palms together with arms out straight.
- Put your chin on your chest and roll down until your hands touch your feet.

Note: Encourage the child to continue to roll down as far as possible until her back is parallel to the floor. Have the child repeat the Adams Forward Bend Test if she rolls down too quickly or if she rolls down to one side or the other. The child's hands should be pointing at her big toes.

**Look for:**

- Upper rib prominence on one side
- Lower rib prominence on one side
- Lower back (lumbar) prominence on one side (see Figure 5)

*Fifth position: Side, in a bending position  
(Adams Forward Bend Test)*

**Instruction to the child:**

- Turn to the side. Put your feet together with weight equally on both legs.
- Put your palms together with arms out straight.
- Put your chin on your chest and roll down until your hands touch your feet.

**Look for:**

- Normal c-shaped curve or more than normal roundness (kyphosis)

Note: Encourage the child to continue to roll down as far as possible until her back is parallel to the floor. Have the child repeat the Adams Forward Bend Test if she rolls down too quickly or if she rolls down to one side or the other. The child's hands should be pointing at her big toes (see Figure 6).

Figure 5

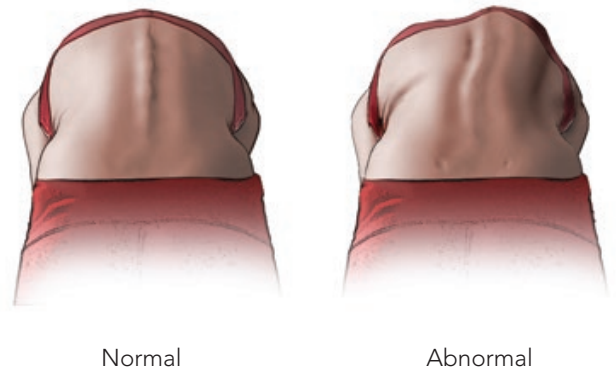


Figure 6

