

Early and frequent screenings the key to child vision health

Andrea Williams, FOR USA TODAY NETWORK – TENNESSEE 9:00 a.m. CT June 5, 2017



According to the <u>American Optometric Association</u>, as much as 80 percent of a child's learning is visual. So whether they're reading a book, learning math problems on a dry erase board or dissecting a frog in biology class, kids rely on their vision as much as, if not more than, any other educational tool.

Melody Thompson's daughter Tyra was preparing to start kindergarten when the Nashville-based mom of three noticed that one of Tyra's eyelids was drooping. After seeing a doctor, they learned that the official name for the condition is "ptosis." And while Tyra's ptosis didn't affect her sight, in severe cases, it can cause a complete obstruction of vision in an eye if the eyelid droops low enough to cover the pupil.

Diagnoses from a child's eyes

Dr. Carl Flinn, an optometrist in Memphis, notes that ptosis is fairly common in children. Another condition frequently seen in children is amblyopia, or the lack of visual development.

"One of the most common causes (of amblyopia) is a major refractive error," Flinn says. "If you notice your child consistently holding things very closely in order to see, and they are squinting to see the television, then suspect a visual problem and a possible need for glasses."

The major refractive errors that can cause amblyopia include near-sightedness (also known as myopis), in which distant objects are out of focus; far-sightedness, in which distant objects are

clear and close objects appear blurred; and astigmatism, in which eyes take on a football shape and both distant and close objects appear blurred.

Less frequent, Flinn says, are cases of infantile cataracts, which can cause irreversible vision loss if left untreated, or instances in which a child can see clearly out of one eye but poorly out of the other.

"Your child often does not recognize the discrepancy and accepts this condition as normal and may not bring it to your attention."

Regardless of the condition, however, Flinn and other eye health experts recommend early and frequent vision screens for children.

And, says Dr. Ming Wang, director of Nashville's <u>Wang Vision 3D Cataract & LASIK Center</u>, failure to closely monitor a child's visual health early can lead to long-term damage.

"The visual cortex, the part of our brain involved in visual interpretation, develops primarily in early childhood, from birth until about age 10," he explains. "Proper development of the visual cortex is critically dependent on continued and proper visual signal stimulation. So if a child cannot see well at, say, age 3, and the problem is not corrected immediately, the child may develop irreversible, permanent loss of sight."

Early screening essential

Wang advises parents to begin screening their children at birth. At that age, his staff looks for congenital problems that may affect a baby's vision, while older infants are tested on their ability to fixate on and follow an object. Toddlers are asked to recognize patterns, and older children are tested with a standard vision chart.

Wang also encourages parents to be vigilant about screenings even if their child doesn't appear to have any vision problems.

"Unlike adults, who are more communicative and can relate their vision problems, children tend to be less communicative," he says. "For example, a child's school grades may fall, simply because he can't see the board at the front of the room, but he may not tell his parent. So the parent might suspect another problem."

At Tyra's initial vision screening, when doctors diagnosed her ptosis, they also noticed that she was nearsighted. And even though Tyra's need was only slight at the time, Thompson immediately ordered glasses for her daughter. Tyra's nearsightedness has continued to progress over the years (she's now 12 and in the fifth grade), but Thompson's diligence has ensured that those vision problems haven't negatively impacted any other aspect of her life.

"Tyra has annual eye visits, and we just got the clear from Vanderbilt to see a regular eye doctor instead of having to see the specialist," Thompson says. "I'm just thankful for a good team of

doctors who showed real concern from the beginning to make sure she received the best care possible."

Thompson notes that her own nearsightedness (she began wearing glasses in seventh grade) may have caused her to pay extra attention to the visual development of her children.

"I will never forget putting my glasses on and walking outside for the first time," Thompson says. "I had no idea you could see the leaves on trees from far away! That has been a crazy, ingrained memory for me, and I never wanted my children to have that experience."

Unfortunately, though, not all parents are as acutely aware of the importance of monitoring their child's eye health. In considering the biggest challenges in diagnosing and treating child vision problems, Wang says it actually comes down to a lack of parental education.

"Because children are not independent, and they depend largely on their parents for all aspects of their lives, it is of paramount importance that adults be properly educated about vision care for their children," says Wang. "We host monthly vision education seminars at the Wang Vision Center to provide that important education for adults."

Beyond the basic eye chart

Dr. Rebecca Norris, an optometrist at Nashville's AccessorEyes, agrees.

"Many children grow up in homes where the parents have great eyesight and do not need vision correction. Many of these parents do not even realize that the child is having problems because it is not on their radar or on their normal list of annual doctor appointments."

For parents who rely on the yearly vision screening performed by a primary care physician, Norris says that may not provide a comprehensive overview of a child's visual health.

"Many pediatricians and schools screen a child's vision by simply having him read the eye chart; yet there are so many children who can pass these screenings but still need glasses," she says. "It's so important to have an optometrist do a full comprehensive vision and eye health exam. And these full exams should be performed each school year because vision can change so drastically from year to year."

Common signs of child vision problems

- Falling grades
- Excessive squinting
- Head tilting
- Sitting closer and closer to the TV
- Skipping lines when reading
- Getting tired when reading
- Avoiding reading altogether

• Eyes that turn in or out

Summer eye safety

"We are cognizant to apply sunscreen but forget that the sun's UV rays can also cause damage to the eyes, which can increase the risk of cataract, corneal damage, and macular degeneration," says optometrist Carl Flinn.

"Sunglasses marked UV 400 or 100% UV blockage with a wraparound style along with a wide brim hat are a must for a day outside."