

Optotype-based Vision Screening

Head Start programs are required to do evidence-based vision screening. The most common type of vision screening for children ages 3 to 5 is optotype-based screening. This resource offers information about this type of screening and tips for Head Start staff who conduct the screening.

Optotype-based screenings allow staff to check how well a child sees by using special pictures or letters called optotypes.



Why use optotype-based screenings?

Optotype-based screening helps identify children who might have a problem with their vision. The results can guide professionals to know what the issue might be. If vision problems are undetected, they can lead to permanent vision loss and difficulties in school.

How does it work?

During the screening, the screener asks the child to look at optotypes. These could be letters, shapes, or pictures. The screener checks how well the child recognizes them. The screener may use an eye chart, flipbook, or computer to show the optotypes.

What pictures or letters are optotypes?

Lea Symbols® or HOTV letters are optotypes that experts recommend. They are shapes and letters children can match without naming them. Lea Symbols® are shapes sometimes identified as house, ball, apple, and square. HOTV are the letters H, O, T, and V. These symbols or letters work well for children who speak different languages because children can match them without saying the names. For example, they might call an apple a heart, and that's OK.

Examples of Optotypes



Lea Symbols



HOTV letters

Vision experts do not recommend using other symbols or letters. Some vision screening tools use other letters, different pictures called Allen pictures, or “Tumbling E.” However, these are not the right tools to use with young children. Make sure the child is familiar with the symbols and letters you use for the screening.

How does a screener check each eye separately?

A screener will cover one eye at a time to check the child’s vision in each eye. This is the most accurate way to screen for vision problems. Proper ways to cover the eye include using an adhesive patch or 2-inch-wide hypoallergenic surgical tape. Specially made glasses are also acceptable. Holding a tissue, hand, or spoon over a child’s eye is not recommended since a child could still see through or around them.

Remember, optotype-based screenings can be a fun eye game for children. Making it enjoyable helps to find any vision concerns more easily.

For more information, check out [Vision Screening for Young Children](#).



Tips for Head Start Program Staff

- Use playful activities so that children get to know the optotypes you plan to use. It’s important to help children understand what to expect.
- Create a positive and encouraging atmosphere during screenings.
- Share information with families about the importance of optotype-based screenings for their child’s development and what the results might mean.
- Keep records of screening results; make referrals if needed; and communicate with health care providers if needed, and with parental consent.



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