Developmental Optometrists: What They Do

During an exam, all eye doctors check the physical condition and health of their patients' eyes, as well as their refractive status—in other words, what lens prescription best corrects nearsightedness, farsightedness, or astigmatism for clear vision. Development optometrists do this as well. However, besides making sure their patients are healthy and see clearly, developmental optometrists are also concerned with how efficiently their patients' vision allows them to function. In addition to providing a routine eye exam, developmental optometrists run additional tests to determine if their patients have developed the visual skills they need to adequately perform tasks required in their daily lives, especially at work or school. Developmental optometrists are also specialists in the field of lazy eyes and crossed or wandering eyes.

Developmental optometrists must complete two to three years of post-graduate training after their optometric degree. They are also required to complete extensive clinicals and submit case studies before they can sit for their national boards. Once developmental optometrists finish their additional education and successfully pass both the written and oral examinations on their boards, they are credentialed as Fellows in the College of Optometrists in Vision Development, with the certification of F.C.O.V.D. added to their professional title. (Note: Sometimes developmental optometrists are called behavioral optometrists because of their role in evaluating how vision affects behavior and performance. They are also referred to as pediatric optometrists because of their frequent work with children.)

The role of the board-certified developmental optometrist is becoming increasingly important in today's visually demanding world. Approximately 20% of the population has not developed adequate visual skills needed to function properly, especially when viewing small objects up close as required when reading print, one of the most demanding tasks placed on our visual systems. As specialists in visual function, a developmental optometrist will evaluate the following areas:

1) **Binocularity**, or how the eyes interact with each other and how they transmit information to the brain. The doctor measure the eyes' ability to aim together accurately in order to maintain single vision, and they check to make certain the eyes don’t slide out of alignment, such as with crossed or wandering eyes.

2) **Oculomotility**, or tracking. Developmental optometrists will also check their patients' ability to control where they aim their eyes, such as the skill required for reading so we don't lose our place. They also make sure patients can follow a moving target smoothly and are able to make accurate eye jumps from one point to another.

3) **Accommodation**, or focusing. Developmental optometrists evaluate their patients' ability to change their focus rapidly and smoothly when looking from distance to near and back again, such as from board to desk. In addition, developmental optometrists check to see if patients can maintain clear focus at near ranges for extended periods of time without blur or fatigue, such as required for reading small print.

4) **Vision Perception**. Developmental optometrists also run tests to determine if patients have developed the perceptual skills they need to understand and analyze what they see, checking skills such as visual memory, visual discrimination, visual closure, and visual figure-ground.

5) **Visual Motor Integration**, or eye-hand-body coordination. Finally, developmental optometrists run tests to see if patients' visual systems are efficiently transmitting information to the body's motor centers for good balance and coordination. This is especially important for young athletes.
Note: Please see the page on "Vision and Reading" for a more complete discussion of the above areas.

Patients can have healthy eyes and clear vision and still have problems in these other areas. However, because this is a specialized area of care, most eye doctors do not run the additional tests to identify problems. Therefore, many functional vision disorders are not identified during most standard eye exam. Patients often attribute their symptoms to other problems, such as learning disabilities or attention deficit disorders, when the real source of their functional decline is an undiagnosed vision problem. (Please see the symptoms checklist for common signs of "hidden" vision problems.)

If your child is struggling to visually process information, especially in reading, or has trouble paying attention with visually demanding work, you may want to consider asking your family eye doctor to refer you to a colleague who specializes in this area of care. You can also locate a developmental optometrist in your area by contacting the national certifying board at www.covd.org.