



# The ABCs of Eye Health

by Hilary Feldman

I don't wear glasses myself, so I never considered having my children's vision tested. The shock came when my younger child was screened in kindergarten, and I was contacted about some abnormal results. With my heart pounding, we visited the optometrist for a full eye exam. This time we were lucky—no problems were detected. But the scenario is common, although subsequent all-clear results are not. More often, in-school screening is the first indication that a child has vision challenges.

Why does it come as such a surprise? For a start, children may not realize that their own way of seeing is not the same as yours. In addition, some of the more serious problems have few symptoms. For this reason, the BC Association of Optometrists recommends that every child needs an eye exam at age three. By this point, children have developed many vision characteristics and also respond well to intervention when necessary.

One major aspect of an eye exam is establishing that a child has clear vision. However, just as important are the other tests of eye health. Different procedures check that both eyes function together and pupil reactions are normal. They can detect poor eye coordination, eye movement defects, poor hand-eye coordination, and

any difficulty with focus control. Along with detecting eye problems, thorough exams can help diagnose other medical conditions such as diabetes.

While some vision conditions—near-sightedness, far-sightedness, and astigmatism—can be corrected with glasses and respond well when detected, other common

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eye problems may need specialized treatment. Amblyopia (lazy eye), strabismus (crossed eyes), and other binocular deficiencies require early intervention. According to Vancouver optometrist Dr. Della Chow, "We know there's a critical development period. By age 6, if a lazy eye hasn't been corrected or detected, you actually can't correct it later." Unlike simpler vision problems, a lazy eye or crossed eyes involve neurological development between each eye and the brain. If nerve connections don't form at the appropriate developmental

time, the opportunity is lost permanently. In the most severe cases, untreated amblyopia can result in total blindness in the eye. Fortunately, vision therapy, patching, and other treatments are very effective—as long as the child is still under about six to eight years old.

## What To Expect

Eye examinations include checking focusing ability at a range of distances, peripheral vision, binocular vision, and pupil reactions. A full medical history will be taken to look for areas of concern. Additional tests might include checking eye pressure, colour vision, and examining the retina. Eye drops may be administered to allow certain tests, but typically this is on an as-needed basis, especially with young children.

As you might imagine, some of these tests can be challenging with younger children. So it is important to find an optometrist or ophthalmologist who can accommodate the wiggles. For example, Chow is happy to reschedule when a child is unwilling to be examined; tests are made into interactive games, and bonus prizes may sweeten the experience. Other concerns may be that your child does not recognize letters yet, is not speaking much, or is incredibly shy. Worry not, today's eye exams have really progressed. Not only are

there different shapes and animals available (as well as letters for older kids) but as Chow explains, “They don’t even have to say anything and I can actually know if there’s a problem going on, with the equipment that we have.”

As for the nitty-gritty financial details, MSP pays a subsidy for every child’s eye examination. While an adult pays \$98 for a test, a child’s exam costs \$58. Most extended health plans will pay for children, bringing it down to zero out-of-pocket, even if further prescriptions call for glasses and contact lenses. Low-income families and those on income assistance are covered through several provincial initiatives so that routine eye examinations and prescription glasses are included.

### Your Eyes Are Important

The need for early eye examinations is less publicized than other health programs like immunization and regular dental checks. While family doctors are proactive about immunization as a public health issue, they are less likely to mention the need for dental and vision tests. Dental associations have raised awareness through intensive campaigning and outreach. However, optometrists and other eye professionals are still trying to improve public awareness. The BC Association of Optometrists has a new interactive a-b-See program at [www.optometrists.bc.ca/](http://www.optometrists.bc.ca/), complete with website games and information brochures.

Even if your child is older than three, it is never too early to have an eye check. In particular, certain things may be cause for concern. Warning signs include a child sitting very close to the television and other screens or holding objects up too close. A child may avoid work like doing puzzles, reading books, or colouring. You may also see some unusual physical habits, such as covering one eye when looking at something up close or holding the body rigid when looking far away. In addition, a child may demonstrate a lack of concentration or short attention span, be rapidly frustrated, grimace, show excessive blinking or eye-rubbing, tilt his head or have an odd posture, or suffer from headaches, blurred vision, double vision, burning or itchy eyes. At school, a teacher may comment on a lack

of participation, poor performance, or hyperactivity. A child’s inability to catch, build, balance, or perform other hand-eye coordination activities may be due to vision problems as well.

If you are still unconvinced that eye testing is necessary, consider these sobering facts:

- 80% of a child’s learning at school is based on vision;
- 20% of children have a vision problem – that is one in every five kids;

- Some children may suffer long-term vision damage if their condition is not treated;
- One out of every six children diagnosed with a learning disability actually has a correctable vision problem.

So why not make the call and schedule that first eye exam with an optometrist or ophthalmologist? Even better, consider appointments for every family member and ensure that you are making eye health a priority. 

## Your Baby’s Eyes

By Dr. Darren Sass

**T**he Canadian Optometric Association recommends that all babies have a routine eye examination by six months of age. Your baby doesn’t need to speak to be examined. Eye doctors are trained observers and have many ways to get the information needed to ensure your baby has good eye health and proper visual development.

At birth, babies are able to move their eyes and react to light. As they get older and more experienced, they learn to use their eyes more effectively to see and understand the world around them. Vision becomes an extension of their touch and taste. Vision is extremely important to a child’s development and problems with eye health or incomplete development of visual skills can have a profound effect on a child’s quality of life.

You should make an appointment to see your optometrist at around your baby’s sixth month. Schedule the exam at the time of day at which your baby is most alert. Nap or feeding times are not ideal. It should take about 30 to 60 minutes. A thorough case history will be taken with questions about the pregnancy, birth, baby’s health and developmental milestones, as well as any related family history. Any concerns that you may have will be discussed.

The health of your baby’s eyes will be assessed, inside and out. Any problems that interfere with the vision of one or both eyes could prevent further visual development, so this is a very important part of any eye exam. There may also be an assessment of the nervous system as it relates to vision. Bright lights may be used to see inside your baby’s eyes and while most fuss about it, the procedures used are entirely safe. If indicated, your doctor may use an eyedrop that dilates the pupils to see more of the insides.

By six months of age your baby’s eyes should be working together as a team so the alignment and movement of the eyes must

be evaluated. Babies will track anything of interest to them, particularly high contrast black and white objects, or sometimes just simple lights. We want to be sure that both eyes are aligned at the same spot, wherever baby is looking.

Although your baby cannot read a letter chart, there are a variety of ways of testing what they can see by observing their responses. Your optometrist can also measure the power of your baby’s eyes objectively to ensure that both eyes are seeing equally and within expected ranges. Any imbalance or extremes in refractive power should be treated to avoid later problems such as amblyopia (lazy eye) or strabismus (eye turns).

There may also be an assessment of your baby’s body and hand-eye coordination. Social and language skills may also be screened. Other specialized testing may be appropriate for infants at high risk for visual problems. These may include:

- Premature or low birth weight babies, particularly if oxygen was administered.
- Family history of any eye or systemic disease.
- Difficult births, infection during pregnancy, low APGAR scores.
- Any baby with genetic anomalies such as Down syndrome or motor problems such as cerebral palsy.
- Maternal alcohol or drug use.

If all is well, your baby’s optometrist will want to see you again in a year or so to follow baby’s progress. If there were any concerns, treatment may include: activities to help your baby develop its vision, helpful tips to set up baby’s surroundings, eyeglasses or contact lenses to promote normal vision development, or referral to other professionals to assess their areas of expertise. Failure to adequately address any vision problems can result in serious problems that have lifelong effects. The best way to avoid vision problems is to have your baby checked early and often.