

# Your Child's vision and eye health

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Alberta Association of Optometrists



## Your Child's vision and eye health

Every parent wants their child to be happy and healthy, and part of that is ensuring their visual system functions properly.

Regular eye exams should be a part of your child's routine health checklist.

### Did you know:

- 80% of learning is visual for a child.
- 1 in 4 school-aged children has a vision problem.
- Children with vision problems are often misdiagnosed as having learning or behavioural disabilities.
- Children are often unaware they have a vision issue as they believe what they are seeing is normal.
- The earlier an eye health or visual problem is identified, the more likely it can be corrected.

It is not uncommon for parents to believe they would know if their child has a vision problem, however these issues can be hard to spot particularly if there is a problem in only one of the eyes.

If your child is not seeing properly, it can impact their ability to learn.

A regular eye exam is an important part of your child's overall health. A regular eye exam is an important part of your child's overall health.

#### **Infants**

Optometrists recommend that babies have their **first exam between six and nine months**.

Schedule your little one's appointment around the time of day your baby is usually relaxed and happy. The eye exam is covered by Alberta Health\*. Babies' eye exams are done using special tests since babies cannot read. The optometrist will check to ensure:

- their eyes are healthy;
- eye and muscle movements and alignment are developing properly; and
- the eyes are focusing together.

\*Check with our optometrist prior to your appointment to determine if there are any additional costs.





### **Toddlers & Preschoolers**

Optometrists recommend children have at least one eye exam between the ages of two and five. By this age, many of the vision skills required for life-long learning are reasonably developed. Many serious eye conditions, if detected and treated by this age, are reversible or preventable. The eye exam is covered by Alberta Health\*. The optometrist will check to ensure:

- · visual development is continuing normally; and
- their depth perception, eye-hand coordination and visualization skills are appropriate for their age.

\*Check with our optometrist prior to your appointment to determine if there are any additional costs.

### Kindergarten

Once in school, it is recommended your child have an **annual eye exam**, as vision can change guickly. A comprehensive eye exam is the only way your optometrist can assure you that your child's eyes are ready for the challenge of learning in school. The eye exam is covered by Alberta Health\* until their 19th birthday.

If your child is in kindergarten, has an eye exam, and it is determined that they require eye glasses, the Alberta Association of Optometrists' **Eye See . . . Eye Learn™** program will provide a pair of glasses free of charge. To learn more about this program, visit www.optometrists.ab.ca/esel.

\*Check with our optometrist prior to your appointment to determine if there are any additional costs.

#### **School Years**

Once in school, it is recommended your child have an **annual eye exam**, as vision can change quickly. A comprehensive eye exam is the only way your optometrist can assure you that your child's eyes are ready for the challenge of learning in school. The eye exam is covered by Alberta Health\* until their 19<sup>th</sup> birthday.

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### What is included in a comprehensive eye exam

A comprehensive vision and eye health exam starts with a series of questions to determine the general health of your child, family history and how your child uses their eyes at school and at play. The exam will last approximately 15 minutes. Using specially designed equipment, your optometrist will:

- conduct an external and internal health examination of your child's eyes;
- evaluate the alignment of their eyes;
- · check their ability to judge depth and colour;
- check peripheral vision; and
- evaluate how well they see and determine if glasses are required.

### Signs and symptoms your child may have a visual problem

Be alert for signs and symptoms that could indicate your child has a visual problem, including:

- red, itchy or watering eyes
- sensitivity to light
- an eye that turns in or out
- squinting, rubbing the eyes, or excessive blinking
- a lack of concentration

- covering or closing one eye
- holding objects very close to the face
- avoiding books and television
- visible frustration or grimacing
- tilting the head or unusual posture





### Vision success at school

A school-age child's eyes are constantly in use in the classroom and at play. For school-age children, several different visual skills must work together so they can see and understand clearly:

- clear vision, both at a distance and up close;
- the ability to maintain focus accurately at any distance;
- good focusing flexibility to allow rapid change from one distance to another;
- binocular vision skills, including control of eye position, movement and tracking; and
- peripheral vision and eye-hand coordination.

If any of these visual skills are lacking or impaired, your child will need to work harder and may develop headaches or fatigue. The increased visual demands of schoolwork can make greater demands on a child's visual skills, bringing to light a vision problem that was not apparent before starting school.

Your child may not realize they have a vision problem as they may simply assume everyone sees the way they do. A vision-related problem may cause any of the signs and symptoms described below:

- headaches or irritability
- avoiding near or distance work
- covering or rubbing of the eyes
- tilting the head or unusual posture
- using a finger to maintain place while reading
- losing place while reading
- omitting or confusing small words when reading
- performing below their potential

### **Vision Screening**

You can't assume your child has healthy eyes because they have passed a vision screening or are not complaining.

- More than 43% of children who have a vision or eye health problem can pass a basic vision screening.
- Children may have one eye that is doing most of the work, hiding the fact that the other eye is not functioning properly. If left untreated, this could permanently impair your child's vision.
- Many eye problems have no symptoms and rarely any pain.

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# Eye conditions affecting children

### Nearsightedness (myopia)

A common condition in which near objects are seen clearly, but distant objects appear blurred. Myopia can occur at any age. This can be corrected with eyeglasses.

### Farsightedness (hyperopia)

Distant objects are easier to see than near objects. The extra effort required to see clearly at close range can cause blur, fatigue, muscle tension, discomfort and headaches. This can be corrected with eyeglasses.

### **Astigmatism**

Either the cornea and/or the lens inside the eye is slightly irregular or cylindrical in shape, resulting in vision being blurred or distorted at all distances. This can be corrected with eyeglasses.



### **Strabismus or Crossed Eyes**

A crossed eye, which can turn in or out, is a muscle condition in which a child's eyes are not properly aligned with each other.

- Coordination of a child's eyes, and their ability to work together, starts to develop in infancy.
- Failure of the eye muscles to work together properly can lead to strabismus, which generally appears between the ages of birth and three years.
- A child will not outgrow strabismus without treatment; in fact, the condition may become worse.
- Children may initially experience double vision because both eyes are not focusing on the same object.
- In an attempt to avoid double vision, the brain eventually disregards the image from one eye.
- In time, the ignored eye will become unable to function normally and will become largely unused, which could result in development of amblyopia (lazy eye).
- Treatment for strabismus can include eyeglasses, prisms, vision therapy, and in some cases, surgery.

It can be corrected with excellent results if detected and treated early.

### **Amblyopia or Lazy Eye**

Amblyopia is weak vision or low vision in one eye as a result of an uncorrected prescription during the early years of development, or due to strabismus

- Amblyopia is largely symptom free to a young child.
- It is the leading cause of preventable vision loss.
- If detected and treated early, before the age of six, it will often resolve completely.
- It is vital to treat amblyopia early with vision therapy, eyeglasses, contact lenses and/or patching, as treatment becomes very difficult later on.
- If left untreated, amblyopia may lead to a permanent decrease of vision in the affected eye.

### **Eye Coordination**

Eye coordination is the ability of both eyes to work together as a team. Each eye sees an ever-so-slightly different image, but the brain blends these two images into a single three-dimensional picture.

- Good eye coordination keeps the eyes in proper alignment, but a minor misalignment of your child's eyes can cause symptoms like double vision, fatigue and headaches.
- Eye coordination skills are developed during early childhood.
- Some signs and symptoms that may indicate poor eye coordination in children are covering one eye, tilting their head, skipping lines or losing their place while reading, performing poorly in sports, avoiding tasks that require close work and tiring easily.
- Poor eye coordination can be treated through vision therapy, eyeglasses and/or other optical aids.
- If detected early enough, the success rate for achieving proper eye coordination is high.



### **Conjunctivitis: Pink Eye**

Conjunctivitis is an inflammation of the thin, transparent layer covering the surface of the inner eyelid and a portion of the front of the eye.

- The three main types of conjunctivitis are infectious, allergic and chemical.
- The infectious form, commonly known as "pink eye," is caused by a contagious virus or bacteria.
- A reaction to pollen, cosmetics, animals or fabrics often bring on allergic conjunctivitis.
- Irritants like air pollution, noxious fumes and chlorine in swimming pools may produce the chemical form.

With the infectious form, there may be puss-like or watery discharge around the eyelids. Allergic conjunctivitis is often associated with stringy white mucous. Other symptoms include:

- · Red eyes
- Inflamed eyelids
- Watery eyes
- Blurred vision
- Gritty or scratchy feeling in the eyes

It is important to have your child's condition diagnosed and properly treated quickly by an optometrist. These medical appointments are covered by Alberta Health. Treatment may include:

- Antibiotic eye drops and/or ointment
- Artificial tears
- Cold compresses
- Antihistamine eye drops

To prevent giving infectious conjunctivitis to others, children should keep their hands away from their eyes, thoroughly wash their hands frequently, and avoid sharing pillows, towels and washcloths with others. Small children who may forget these precautions should be kept at home until the condition has resolved.

## Medically necessary & Urgent Care

All Albertans are covered by Alberta Health\* for medically necessary and urgent care visits to their optometrist. They have the proper knowledge, tools and equipment necessary to diagnose, treat or refer to a specialist, if needed. This includes things, such as:

- · eye infections or injuries;
- · foreign objects in the eyes;
- · sudden changes in vision;
- monitoring for diabetes issues, glaucoma and retinal disease; and
- post-operative care for cataract patients.

You do not need a referral. Most optometrists keep a few daily appointments available for medically necessary and urgent care services.

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# Protecting your child's eyes from the sun

Protecting your child's eyes from ultraviolet (UV) radiation is just as important as putting on sunscreen to protect their skin, and it is an issue through every season of the year. The glare from snow can be just as harmful as the glare from water. Many age-related eye diseases may be partially caused by UV exposure throughout your life. Infants and young children are especially vulnerable to UV radiation.

Speak to your optometrist about the best options for your child. In addition to appropriate sunglasses, wearing a wide-brimmed hat or baseball cap can provide further protection.

Optometrists complete a Bachelor of Science degree or higher, followed by a four year Doctor of Optometry degree from an accredited university. They are a primary source for all your vision, eye health and eyewear needs. If you do not currently have a optometrist, visit our website at www.optometrists.ab.ca and click on *Find an Optometrist*. This will provide a list of optometrists in your area.

For information about many other common eye-related conditions, visit our website's Eye Health Library. optometrists.ab.ca/eyehealthlibrary