Your Vision and Your health

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optometrists.ab.ca

Alberta Association of Optometrists

Your Vision and Your health

A regular eye exam is an important part of maintaining a person's overall health.

DID YOU KNOW:

- Many common eye diseases have no early signs or symptoms.
- During a comprehensive eye exam your optometrist examines the tissues and structures inside the eye, looking for eye diseases such as cataracts, glaucoma or macular degeneration, as well as tears in the retina, bleeding and tumours.
- Your optometrist is also looking for early signs of serious medical conditions, such as high blood pressure, diabetes and cardiovascular disease during an exam.

Based on the results, your optometrist will advise you about corrective lens options most suited to your personal needs, treatment options, or will refer you to a specialist if further evaluation or treatment is required.

Eye Examinations

Optometrists recommend that **adults have a comprehensive eye examination at least every two years, and children and seniors annually.** In some cases, more frequent visits may be required. Eye exams for children (until their 19th birthday) and seniors are covered by Alberta Health*.

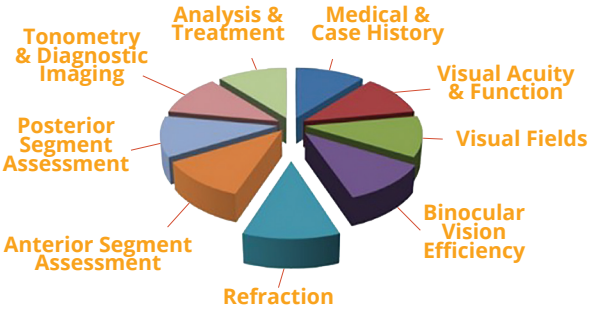
Exams will last approximately 15 minutes. Using specially designed equipment, your optometrist will conduct an external and internal examination of your eyes.

The chart shows the components of a complete eye health and vision exam. Refraction refers to the measurement to determine what corrective lenses you need. There is much more to a comprehensive eye exam than checking how well you can see.

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

Vision Screening & Sight Tests

You can't assume you have healthy eyes because you passed a vision screening or sight test (refraction). Many eye problems have no symptoms and rarely any pain. Your optometrist will evaluate the internal and external health of your eyes.



Common Vision Conditions

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.

Presbyopia

A natural effect of aging, usually occurring after the age of 40, in which the ability to focus on close objects decreases over time. It can cause headaches, blurred vision, tired eyes and the need for more light. This can be corrected with eyeglasses.

Cataracts

When the normally clear lens within your eye becomes cloudy and opaque, it is called a cataract. Cataracts are a function of aging and are most often found in people over the age of 60, although they are occasionally found in younger people, including newborns.

Risks

- Excessive exposure to UV radiation present in sunlight.
- Cigarette smoke.
- Use of certain medications.
- The result of an injury or a disease.

Prevention

- There is no proven method to prevent cataracts from forming.
- Wearing quality, UV blocking sunglasses is of tremendous benefit in protecting your eyes from harmful UV rays that can speed up cataract formation.
- A diet rich in antioxidants, such as vitamins A, C, E, zinc, selenium and magnesium can be beneficial.
- Not smoking.

Treatment

- In the early stages, your optometrist may prescribe new lenses for your glasses to provide you the sharpest vision possible.
- Your optometrist may refer you to an eye surgeon who may recommend the surgical removal of the cataracts.
- Some cataracts never progress to the point that surgery is required.

Glaucoma

Glaucoma is one of the leading causes of blindness in Canada. It is a progressive disease that most frequently occurs in individuals over the age of 40, with the risk of the disease increasing with age. There is a greater risk of developing glaucoma for people with diabetes, high blood pressure, a history of eye injuries or a family history of glaucoma.

Symptoms

Elevated pressure within the eye damages the optic nerve, which can lead to serious vision loss if not detected and treated early. The optic nerve takes all of the information from the eye and transmits that information to the brain.

- Open angle glaucoma is the most common form of glaucoma, where there are usually no symptoms until the individual experiences peripheral vision loss (which is why it is referred to as the "silent vision thief").
- A more rare form is called closed angle glaucoma where there is a sudden rise in the pressure within the eye, and the individual may experience pain, blurred vision and see halos around lights.
- Untreated, both forms can lead to complete loss of vision.

Prevention

As there is no way to prevent glaucoma, a comprehensive eye exam with your optometrist is the only way to detect the disease.

- Your optometrist will perform a simple and painless procedure during your routine eye exam, which measures the internal pressure of your eye, and they will look at the optic nerve and measure your field of vision.

Treatment

If detected and treated early, eye drops and laser surgery are usually effective at maintaining your vision, and little or no further vision loss should occur.

- If left untreated, peripheral vision is affected first, followed by central vision loss during late stages of the disease and complete blindness may occur.
- Special equipment may be used to image your eye to better monitor the progression of glaucoma.

Macular Degeneration

Age-related macular degeneration (AMD) affects the macula – the central most part of the retina. AMD causes the centre of your vision to blur or distort while the side or peripheral vision remains unaffected. It is generally related to the aging process, and is the leading cause of blindness in North American adults over the age of 55. There are two types of AMD – dry and wet. While there is no cure, early detection and prevention measures can delay or reduce vision loss.

Symptoms

- In the earliest stages, AMD is entirely symptom free, but can be detected during routine eye examinations by your optometrist.
- The most common initial symptom is slightly wavy or distorted central vision when performing tasks that require seeing detail.
- The most common and milder form, dry AMD, has a gradual degeneration of the central retinal tissues.
- Wet AMD is a sudden leakage or bleeding, from weak blood vessels under the macula and symptoms progress rapidly. Wet AMD accounts for approximately ten per cent of all cases, but the dry form can develop into the wet form over time.
- The damaged area may increase in size and interfere with reading and recognizing faces.
- Patients do not experience any pain with AMD.

Prevention

Lifelong UV protection and good nutrition are believed to play key roles in preventing AMD.

- Living a healthy lifestyle by keeping your blood pressure down, reducing your intake of fatty foods and not smoking are all recommended.
- A diet high in antioxidants, such as those found in fruits and leafy vegetables, may help prevent AMD.
- Regular eye examinations by your optometrist are also important for the early detection of AMD.

Treatment

Early detection is crucial as there is currently no cure for AMD.

- Dry AMD is treated with lifestyle modifications like exercise, wearing sunglasses to reduce UV radiation and stopping smoking.
- Many cases of wet AMD can be treated with injections of anti-VEGF therapy into the eye to stop leaking blood vessels.
- Ocular vitamin supplements including lutein, zeaxanthin, and vitamins C, E and zinc, can also assist in slowing the progression of AMD.

Diabetes

Changes in the eye due to diabetes can be detected during an eye exam, and are often the first indication that a person may have the disease, or that a person with diabetes does not have adequate blood sugar control.

Diabetic retinopathy occurs when there is a weakening or swelling of the tiny blood vessels inside your eye, resulting in blood leakage, the growth of new blood vessels and other changes. If diabetic retinopathy is left untreated, blindness can result. Diabetic retinopathy can affect people with both type 1 and type 2 diabetes.

Symptoms

In the early stages, retinopathy is often without symptoms, so regular eye exams are the best way to detect changes. Diabetes and its complications can affect many parts of the eye.

- Diabetes can cause changes in nearsightedness, farsightedness and premature presbyopia – the inability to focus on close objects.
- It can result in early cataracts, glaucoma, paralysis of the nerves that control the eye muscles or pupil, and decreased corneal sensitivity.
- Visual symptoms can include fluctuating or blurring of vision, occasional double vision, loss of visual field, and flashes and floaters within the eye.

Prevention

Stable blood sugar reduces the risk of developing diabetic retinopathy, so it is important to monitor and maintain control of your diabetes.

- Annual eye exams with your optometrist can help identify retinopathy as early as possible, so treatment can minimize damage.
- See your family physician regularly and follow instructions about diet, exercise and medication.
- Your optometrist and your physician can work with you and co-manage the disease.

Treatment

Early detection of diabetic retinopathy is crucial, as treatment is much more likely to be successful at an early stage. People with diabetes should have annual eye exams, unless more frequent evaluations have been recommended.

- Diabetic retinopathy may be treated with injections of anti-VEGF therapy into the eye, or laser therapy.
- Retinal surgery may be necessary.
- Your optometrist can co-manage treatment with an ophthalmologist or retinal surgeon.

Digital Eye Strain

Digital eye strain is caused by a number of factors, including staring at close-up objects for extended periods of time.

Symptoms

- Eye irritation
- Double vision
- Headaches
- Excessive tearing or dry eyes
- Excessive blinking or squinting
- Blurred vision
- Sensitivity to light

Prevention

There are every-day preventative measures that can be taken to help reduce the risks of digital eye strain:

- Just walk away. Take a break for a few minutes and give your eyes a rest. Focus on something in the distance.
- Eliminate screen glare by reducing overhead lighting.
- Position the computer slightly below eye level and at arm's length.
- Increase text size on digital devices.
- Adjust screen brightness.

Treatment

Based on the patient's digital device habits,an optometrist can recommend a customized solution to help prevent the adverse effects of digital eye strain.

An optometrist may recommend computer glasses, which can help reduce eye fatigue.

People may be experiencing symptoms, but may not realize the problems are being caused by digital eye strain. Regular visits to an optometrist will ensure these symptoms are being detected early and simple changes are made to alleviate the discomfort.

Medically necessary and urgent care services

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 services.

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

Protecting your eyes from the sun

Protecting your eyes from ultraviolet (UV) radiation is just as important as putting on sunscreen to protect your 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 vision needs. 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

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