

Your Vision After Stroke

Eye Movement Problems

Introduction

A stroke can affect how your eyes move or how your eyelids work. You may have trouble focusing, using or moving your eyes together. This handout explains your condition and gives tips to help you manage it. With the right care and support, things can get better.

It is important to see an eye doctor within one month after your stroke to examine your eyes. To see an optometrist, you can book an appointment yourself or be referred. If you need to see an ophthalmologist (a medical eye doctor) or their orthoptist, your doctor can refer you.



Orthoptists are eye care professionals who work with ophthalmologists. They are trained to assess and manage eye movement problems. Many optometrists can also help manage double vision and other eye issues after a stroke.

Eye problems after a stroke

A stroke can affect how your eyes move or how your eyelids work.

This may include:

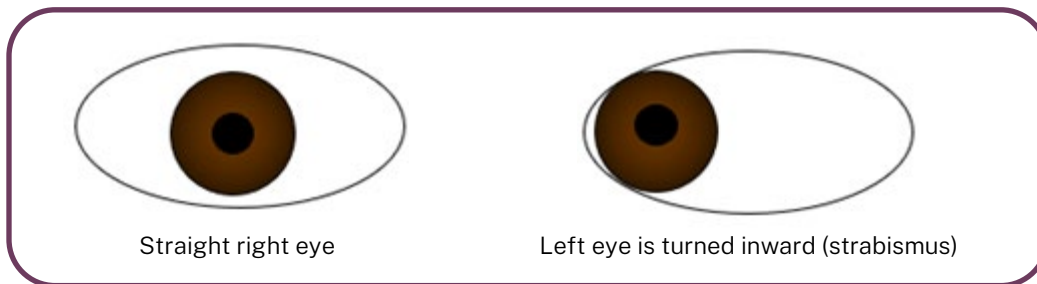
- **Strabismus (crossed eye):** one eye may turn in a different direction.
- **Eye movement problems:** trouble looking left, right, up or down.
- **Nystagmus:** eyes may shake or move without control.
- **Eyelid problem:** an eyelid may droop or not close properly.

If you have any of these problems, you may notice: double vision, blurry vision, trouble judging distance, shaky or wobbly vision, or feeling dizzy or off balance.

Strabismus (crossed eye)

Strabismus is a condition where the eyes are misaligned (crossed) and do not focus in the same direction at the same time. This can happen all the time or only sometimes. If you have strabismus, you might notice:

- Double vision (seeing 2 of the same thing)
- Trouble seeing in 3D (depth perception)
- Double vision can be worse when looking in certain directions



Eye movement problems

Eye movement problems after a stroke may include:

Nerve palsy:

A stroke can damage the nerves that control your eye muscles. This can make one eye turn in, out, up, or down. It often causes double vision and one eye may not be able to move fully in certain directions.

Gaze palsy:

This means both eyes can't move in the same direction (like both eyes may not be able to look to the right). People with a gaze palsy may turn their head to compensate.

Scanning and tracking eye movement difficulties:

After a stroke, some people have trouble:

- Following moving objects (tracking)
- Switching focus between 2 things or looking around (scanning)

These problems can lead to:

- Dizziness
- Trouble focusing on tasks like reading
- Difficulty walking or moving around safely
- Tired or strained eyes



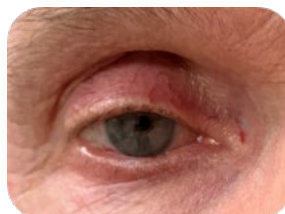
Nystagmus

Nystagmus is when your eyes shake or move without control. This can happen in any direction you look. If you have nystagmus, you may feel like your surroundings are moving. This can make it harder to see clearly and may affect your balance.

Eyelid problems

A stroke can affect how your eyelids work. You may notice:

- **Droopy eyelid (ptosis):** One eyelid may be lower than normal. This often occurs with double vision.
- **Incomplete eyelid closure:** Your eyelid may not fully close, which can make your eye dry or irritated. Using eye drops or eye gel, especially at night, can help keep your eye moist and comfortable.



Right ptosis (droopy lid)



Inability to close the left eyelid

Management and recovery

Everyone recovers differently after a stroke. Some people may fully recover from eye movement problems, while others continue to have symptoms.

It may take 3 to 6 months, and sometimes up to a year, for double vision to get better.

Ways to manage double vision:

- **Eye patch or tape:** Covering 1 eye or 1 side of your glasses can help reduce double vision. This is a quick and easy solution, especially in the first month after your stroke.
- **Prisms:** If double vision continues, you may need a Fresnel prism (photo below). It is a thin, flexible piece of plastic that sticks to your glasses and helps your eyes work together.



Fresnel prism



Right lens has a temporary prism to correct double vision



If your double vision does not go away, you may need new glasses with the prism built into the lens. These glasses are more comfortable and give clearer vision than the plastic prism.

- **Eye muscle surgery:** If double vision does not improve over time, surgery may be an option.

You might naturally turn or tilt your head to help your eyes work better. If double vision happens in a certain direction, look the opposite way or gently move your head to a different position.

Other safety tips

- Ask family or friends to point out steps, stairs, and curbs to help you stay aware of your surroundings.
- Use handrails or use a cane or mobility aid to detect changes in the ground or walking surface.

When you have eye movement problems, occupational therapists can give you other tips and tools to make everyday tasks easier and safer.

Driving after a stroke

In Alberta, it is your legal responsibility to tell Alberta Transportation, Driver Fitness and Monitoring about any health issue that may affect your ability to drive safely, including that you had a stroke.



It is important to get guidance with the reporting process by discussing it with your rehabilitation team, nurse practitioner, or medical doctor. You can find more information about the process on the website: alberta.ca/report-a-medical-condition.aspx

After a stroke, you should ask your medical team, or healthcare providers, whether you are safe to return to driving. If you have ongoing vision problems, you may not be able to return to driving.



Your doctor or vision specialist will be able to assess and offer advice on whether you meet vision requirements for driving.

Even if you feel that your vision is better, it is important you do not return to driving until you have been told by a medical professional that you are safe to do so and you get confirmation from Driver Fitness and Monitoring.

Your rehabilitation team or medical doctor may contact Alberta Transportation to advise them if you are ready to return to driving. You may need a special driving assessment before you return to driving.



Additional resources

Alberta Health Services Stroke Care in Alberta
ahs.ca/stroke

MyHealth.Alberta.ca - Driving After a Stroke
myhealth.alberta.ca/health/AfterCareInformation/pages/conditions.aspx?HwId=custom.ab_stroke_driving_inst

Government of Alberta Driver Medical Fitness
alberta.ca/driver-medical-fitness

Canadian Stroke Best Practices
strokebestpractices.ca/recommendations/stroke-rehabilitation-delivery/8-visual-and-visual-perceptual-impairment

Vision Loss Rehabilitation Canada (search for **Concentrated Programs > Stroke**)
visionlossrehab.ca

This patient education material was reviewed in November 2024 by an Alberta interdisciplinary team of stroke, vision and rehabilitation specialists from across Alberta.

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