



Canadian Ophthalmological Society
Société canadienne d'ophtalmologie
EYE PHYSICIANS AND SURGEONS OF CANADA
MÉDECINS ET CHIRURGIENS OPHTALMOLOGISTES DU CANADA

**VISION LOSS
REHABILITATION™**
CANADA



AMBLYOPIA

A common, brain-based
cause of vision loss in children

When amblyopia is caught and treated early, long-term vision problems can be prevented.

What is amblyopia?

Amblyopia (“lazy eye”) happens when the vision in one eye doesn’t develop properly in early childhood. It’s a brain-based form of vision loss, resulting in weak connections from the eyes to the brain’s vision centres.

You may not be able to notice it easily in your child, but if it isn’t treated early, it will become a permanent visual problem.



Terms you might not recognize are highlighted in **bold** and explained in the glossary on page 6.

What causes amblyopia?

Babies are able to see when they are born, but they have to learn how to use their eyes. They have to learn how to focus, and then how to use both eyes together. Our vision continues to develop until we are about 8 to 10 years old. Once the visual pathways mature, the development of our eyesight is complete and can’t be easily changed.

However, sometimes one eye doesn’t receive the appropriate visual stimulation to develop properly. This can happen due to:

- Misaligned eyes (called **strabismus**)
- One eye being out of focus compared to the other (for example, due to uncorrected refractive errors)
- **Cataracts**, a drooping eyelid, or anything else that stops a clear image from being focused inside the eye

Over time, the brain “shuts off” or ignores images from the eye that is out of focus, and the child depends only on the better eye to see.

Vision in a healthy eye and amblyopic eye due to misalignment (strabismus)

Healthy eye



Amblyopic eye



How is amblyopia diagnosed?

You may not be able to tell that your child has amblyopia. Many children with the condition have no noticeable signs and see well with their good eye. If your child has an eye that turns in, out, or up, or if he or she closes one eye (especially in bright sunlight), these are warning signs.

Some family doctors and pediatricians screen eyesight. There might also be vision screening as part of a preschool checkup in your community, or once your child is in school. If there's any doubt about your child's vision, they will refer you to an eye care professional for more tests.



How is amblyopia treated?

A child's vision is fully developed by about 8 to 10 years of age, so amblyopia must be treated early in life, preferably before age 6. It is hard to reverse amblyopia after that age.

If it is treated early enough, amblyopia can usually be reversed.

Amblyopia is best treated by an **ophthalmologist**, often with the help of an **orthoptist**.

Treatment involves forcing the amblyopic eye to work harder than the stronger eye. This is often done by wearing a patch over the stronger eye, or using atropine drops to blur vision in the good eye.

Treatment may also involve glasses to correct any blurred vision or help straighten the eyes. Surgery may be necessary as well, to mechanically realign the eyes if there is an alignment problem.

Exercises or other types of visual training are not effective in treating amblyopia.

The parents' role

If amblyopia isn't treated, it will lead to a lifetime of poor vision in one eye. This puts your child at higher risk of vision loss if the seeing eye is ever injured. As well, an eye with poor vision can become misaligned (strabismus), which can affect your child's 3-D vision, making certain activities difficult and even limiting some job opportunities.

Parents play a vital role in making sure their child does not have this disability. First, it's important to recognize any signs of a problem. For example, it's not true that all babies are cross-eyed. If your child is 6 months old and is still cross-eyed, you should see a doctor as soon as possible. Second, you should never wait for your child to "grow out of" an eye problem. If you think something is wrong with your child's eyesight, have it checked.

You will need to work with the doctors and others (such as teachers) to ensure your child wears the glasses or patch as prescribed. You play a key role in making sure your child has a lifetime of good eyesight. The earlier the treatment is started, the sooner it is likely to be successful.



Glossary

Cataract: A clouding of the lens of the eye. Seeing when you have cataracts is like looking through a dirty window.

Ophthalmologist: A medically trained eye doctor and surgeon.

Orthoptist: An eye care professional who works with the ophthalmologist in the treatment of amblyopia and strabismus.

Strabismus: The medical term for two eyes that are not straight. One eye may be turned inward, turned outward, or not aligned vertically.



See The Possibilities

A resource for the Canadian public on the topics of vision health, serious eye diseases, and what the Canadian Ophthalmological Society is doing to promote eye health for everyone.

www.seethepossibilities.ca

**VISION LOSS
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A not-for-profit national organization and Canada's leading provider of rehabilitation and healthcare services for individuals with vision loss.

www.visionlossrehab.ca

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