

# Glasses for Infants and Children



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# Glasses for children

## Why are glasses prescribed for children?

Glasses are prescribed for children to improve vision, prevent and treat amblyopia ('lazy eye'), or to correct eye muscle problems.

### **More specifically, glasses may be required for:**

#### 1. Myopia (nearsightedness)

Light rays entering the eye focus in front of the receptor cells in the retina. Myopes may see clearly at near but are blurred at distance.

#### 2. Hyperopia (farsightedness)

Light rays entering the eye focus behind the retina. The eye has to exert extra focusing power to see clearly at distance and even more so at near. If the hyperopia is large then the eye may not be able to focus the image clearly at all. Most young children have mild degrees of hyperopia.

#### 3. Astigmatism

Light rays entering the eye focus at different places. It is caused by an irregular surface of the eye. Instead of being perfectly round, the surface of the eye is shaped like a rugby ball lying on its side and is more curved in one plane than the other.

#### 4. Anisometropia

Each eye has a different focus and the worse eye may become lazy. In this situation the glasses treat the difference between the two eyes.

#### 5. Refractive esotropia

There is a link between the focusing muscle in the eye and the muscles, which draw the eyes together when looking at a near object. Some children with hyperopia are required to exert so much focusing power in their eyes that their eyes turn in. This refractive esotropia may be fully correctable with glasses.



## How are young children tested for glasses?

A retinoscope is used to shine a beam of light into the eye. Movement of the light gives a characteristic reflection in the pupil indicating hyperopia, myopia or astigmatism. Lenses of varying power are placed in front of the eye until the refractive (focusing) error is cancelled out. In young children it is necessary to dilate the pupil and relax the focusing muscle with eye drops to get an accurate test. The eye drops make the child a little light-sensitive and blur the vision for several hours. The drops take 40 minutes to work fully.

## How are glasses prescribed?

A prescription is given for each eye. The higher the first number on the prescription, the greater the correction required in the lens. If there is a second number then this means there is some astigmatism and the higher the number the greater the astigmatism. A plus sign in front of the first number indicates a hyperopic (farsighted) prescription while a minus sign indicates a myopic (nearsighted) prescription. The prescription is taken to an optometrist or optician who will prepare the lenses.

## What type of lenses are the best?

Glass lenses should be avoided in children because they are more likely to break. Plastic or polycarbonate lenses are lighter and safer but they scratch more easily. The lenses must be made with a scratch-resistant hard coating. Some high

power prescriptions can result in thick lenses and your optometrist or optician may advise you on modifying a lens to make it more cosmetically acceptable. High density/thinner materials can be used and the edges of the lenses can be thinned to improve the appearance.



## What kind of frames are suitable for children?

The frame you choose for your child should be comfortable, safe, sturdy, and attractive. Whenever possible, purchase the glasses from an optometrist interested in working with children, and ask for a recommendation on the most suitable frame style for your child's facial features, age, prescription power, and activities. Enquire about a frame guarantee, as these may be available on certain frames.

Some frames can be fitted with clip-on sunglasses. They are not essential, but sunglasses are advisable for all children on bright days. Normal adult ear pieces are usually unsuitable for children and adjustments should be made so the glasses will sit more securely. For infants, straps may need to be substituted for ear-pieces to help keep the glasses in place. Flexible hinges are advisable as children tend to be careless when removing their glasses and flexible hinges tolerate a lot more abuse. If the child is old enough, let him/her help select the frame, but follow your optometrist's advice about size and fit as a child will not wear uncomfortable glasses.



## How can I keep glasses on my child?

It is most important that parents are positive about the glasses. They should not make a big fuss about them but they must encourage the child to believe that the glasses suit him/her.

If your child is an infant or toddler, distract him/her after you have put on the glasses. If your child removes them then replace them immediately. If the child removes them again, then put them aside for a short time and then try again. You must be patient but persistent in having the child wear the glasses.

## Should my child wear glasses all the time?

Usually when a child is prescribed glasses it is because the child needs to wear them all the time. Some children have amblyopia ('lazy eye') with poor development of the visual pathways to the brain because the image into the eye has been blurred. In this situation it is essential that the child wears the glasses all the time so that the brain can learn to recognise clear images. If one eye is more long or short-sighted than the other, and sees more poorly even with the glasses then the better eye may need to be patched (covered up) for part of each day in order to build the vision in the lazy eye.

## How do I care for my child's glasses?

Children should be taught to remove their glasses using both hands without twisting the frame. They should keep them in a protective case and not put them face down on any surface. Use water or liquid soap and a soft cloth to clean them and avoid rough paper towels or tissues. If the glasses are damaged or badly scratched take them back to your optometrist for repair or replacement. Children's glasses usually need to be readjusted every few months; more frequently than for adults.

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