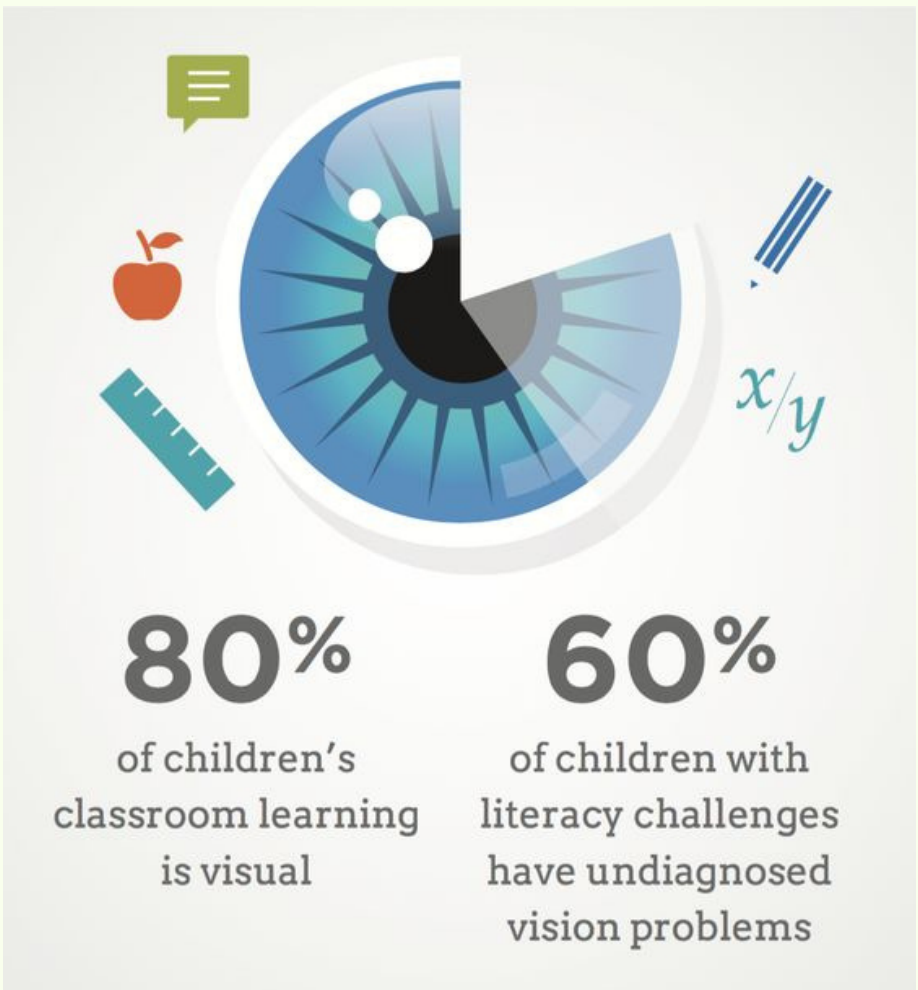
EYE SIGHT ISSUES IN CHILDREN

Dr Mamta Mittal



Why does a child need glasses?

Because a child's vision system is growing and developing, especially during the first 5–6 years of life, glasses may play an important role in ensuring normal vision development. The main reasons a child may need glasses are:

To provide better vision, so that a child may function better in his/her environment

To help straighten the eyes when they are misaligned (strabismus)

To help strengthen the vision of a weak eye (amblyopia or "lazy eye")

To provide protection for one eye if the other eye has poor vision

When is the best time to have your child's eyes checked?
How frequent should an eye exam be done?

The following are suggested eye exam schedule for children:

At birth , At 6 months, At 1 year, 3rd year

Yearly, if not wearing glasses. Six monthly ,if wearing glasses

Your Paediatrician should be aware of indications for referral to an ophthalmologist. The frequency of eye evaluation for children with abnormal findings depends on the abnormality and the severity of the problem.

How can a child be tested for glasses, especially in infancy or early childhood?

By doing a complete eye examination, an ophthalmologist can detect the need for glasses even in very young children. Typically, the pupils are dilated in order to relax the focusing muscles, so that an accurate measurement of the error of refraction can be obtained. By using a special instrument, called a retinoscope, your eye doctor can arrive at an accurate prescription. The ophthalmologist will then advise parents whether the measured error of refraction is appropriate or expected for his or her age and whether there is a need for glasses, or whether the condition can be monitored.

What are the different types of refractive errors that can affect children?

There are 4 basic types of refractive errors:

1. Myopia (near-sighted) - This is a condition where the distance vision is blurred, but a child can usually see well for reading or other near tasks. This occurs most often in school-age children, although occasionally younger children can be affected. The prescription for glasses will indicate a minus sign before the prescription (for example, -2.00). Myopic refractive errors in children frequently increase until the child stops growing.
2. Hyperopia (far-sighted) - Most children are far-sighted early in life (this is normal!) and need no treatment for this because they can use their own focusing muscles to provide clear vision for both distance and near vision. Glasses are rarely needed if the far-sightedness is less than +1.00 or even +2.00. When an excessive amount of far-sightedness is present, the focusing muscles may not be able to keep the vision clear. As a result of this, problems such as crossing of the eyes, blurred vision, or discomfort may develop. A prescription for hyperopia will be preceded by a plus sign (+3.00).
3. Astigmatism - Astigmatism is caused by a difference in the surface curve of the eye. Instead of being shaped like a perfect sphere (like a basketball), the eye is shaped with a greater curve in one axis (like a football). If your child has significant astigmatism, fine details may look blurred or distorted. Glasses that are prescribed for astigmatism have greater strength in one direction of the lens than in the opposite direction.
4. Anisometropia - Some children may have a different prescription in each eye. This can create a condition called amblyopia, where the vision in one eye does not develop normally. Glasses (and sometimes patching) are needed to ensure that each eye can see clearly.

Why is there a need to dilate my child's eyes to check for refractive errors? Won't the cycloplegic drops have harmful side effects?

Children have great accommodative amplitudes and they can change the measurement of refraction. In a child who has no error of refraction (emmetropic), a significant myopia, and sometimes astigmatism, may be picked up if he or she accommodates. The only way to get an accurate measurement of error of refraction in children is to inhibit accommodation with the use of cycloplegic agents.

Minor side effects of cycloplegic agents include transient stinging, blurring of vision, and photophobia. The stinging sensation is diminished by the application of a drop of anaesthetic prior to the application of the cycloplegic agent. Photophobia may be addressed by wearing wrap-around sunglasses or hats. The duration of photophobia and blurring of vision is related to the duration of the drug's mydriatic effect.

My 2 year old child was diagnosed to have an error of refraction. When can he start wearing glasses? How often should he change them?

Any child with an error of refraction that is unexpectedly high for his age should wear corrective glasses. Even 2 month- old babies with very high hyperopia may be given glasses to prevent strabismus and amblyopia. The amount of correction will depend on the degree of the error of refraction and the alignment of your child's eyes. Regular cycloplegic refraction, usually every 6 months, will indicate whether the error is getting better or worse. This will also help your eye doctor determine how much correction to add or subtract from your child's previous correction.

What are the possible signs & symptoms of Refractive errors?

The primary symptom of refractive errors is blurred vision for distant objects, near objects, or both. Sometimes the excessive ciliary muscle tone can cause headaches. Occasionally, excessive staring can lead to ocular surface desiccation, causing eye irritation, itching, visual fatigue, foreign body sensation, and redness. Frowning when reading and excessive blinking or rubbing of the eyes are symptoms in children.

What causes refractive errors?

Refractive errors (myopia and hyperopia) have been found to cluster in families. A variety of inheritance patterns have been observed including dominant (one gene passed from a parent with a refractive error to a child), recessive (caused by two genes, one inherited from each parent who may/may not have a refractive error), and multifactorial (combination of genes and environment

Will wearing glasses make my child's eyes worse or more dependent on them?

No. In fact, the opposite may be true. If a child does not wear the glasses prescribed, normal vision development can be adversely affected.

Which is better – Glasses or Contact lenses?

Both are equally good. Contact lenses require more maintenance & are preferred in sports active personalities as they give wider field of vision.

When can Refractive surgery be done for my kid?

Laser surgery can be done once refraction is stabilized, generally around 18 yrs of age.