**Q:** What is amblyopia?

Amblyopia (pronounced “am-blee-oh-pee-a”) is commonly known as “lazy eye”.

Amblyopia is reduced vision in an eye that did not develop normal vision during early childhood. The eye with reduced vision generally looks normal and the reduced vision does not improve even with the use of spectacles.

**Q:** What can cause amblyopia?

Amblyopia can result from the following conditions:

1. **SQUINT OR MISALIGNMENT OF EYES**

   When one eye is looking straight, and the other is looking in another direction (deviated), i.e. turned either inwards (Fig.1) or outwards (Fig.2). The eyes are said to be misaligned.

   Due to this misalignment, the vision from one eye (the deviating eye) appears less clear so that the clearer vision from the other eye is preferred by the brain. As a result, the part of the brain that receives the vision from the deviating eye does not develop normally. Eventually, this may lead to a severe reduction of vision in that eye (the lazy eye).

2. **DIFFERENT REFRACTIVE POWERS OF THE EYES**

   Amblyopia may develop if there is a significant difference in the degree of short-sightedness, long-sightedness or astigmatism between the two eyes. When the degree of one eye is much higher than the other eye, there is a higher risk of developing amblyopia.
3. BLURRED VISION

This happens when the eye is unable to form a sharp or focused image. This can be due to various conditions, which include:

- An opaque cornea (the transparent surface layer of the eye)
- Cataract (Fig.3) - a condition in which the eye’s lens is cloudy
- Drooping upper eyelids (Fig.4) - due to weakness of the muscles that lift the eyelids
- Eye trauma or eye surgery

Q: What can be done about amblyopia?

Young children may not complain that they cannot see clearly. As the child appears to see normally, parents are not aware that their child has a problem with his/her vision.

Early detection of amblyopia is important because treatment is usually more successful in the young child. It is, therefore, important for all children to undergo regular eye and vision checks. Early checks can be done by the family doctor, paediatrician or ophthalmologist.
How is amblyopia treated?

It is important to treat any underlying conditions, for example, wearing spectacles for refractive errors or going for eye surgery to treat more complex eye conditions.

The main aim of treatment is to allow increased stimulation of the part of the brain that reads images from the “lazy eye”. This means that the “lazy eye” is encouraged to work more than the better eye.

Treatment can be given in two ways:

i) **Patching** the better eye with the use of an eye patch (Fig.5). The “lazy eye” becomes stronger with use. This is the mainstay of amblyopia treatment.

   The patch is a special opaque plaster, gently placed over the normal eye. A patch can be worn all day or for a few hours a day, depending on the child’s age and vision. The ophthalmologist will advise you on how long it should be worn each day. It is important to keep to the scheduled follow-up appointments. If the normal eye has been covered for too long, it may become a “lazy eye” instead!

ii) **Eye drops** to blur the vision of the better eye can be used in selected cases.

When it comes to amblyopia, early treatment is most effective. This is because the affected part of the brain may not respond to stimulation if treatment is done too late. Hence, **do not delay treatment!**
Q: What is the parents’ role during treatment?

Children usually do not like to wear eye patches. It is important for parents to explain to their children why they need to wear these eye patches and to have a positive attitude toward patching.

It is useful if someone can sit with the young child during patching time and read or play with him rather than leave him alone as he may fall asleep or pull off the patch. The older child can be given some enjoyable assignment e.g. drawing or colouring, which requires him to use the “lazy eye”.

Adults should discourage teasing by playmates or classmates. They can explain the role of patching to them. They can also teach the child ways to cope with curious stares and questions.

Parents should also inform their child’s school about the treatment so as to ensure compliance with the patching.

Q: Is it important to treat amblyopia?

Yes! Amblyopia is not a condition that will go away on its own, and untreated amblyopia can lead to loss of vision in the “lazy eye”.