

DO YOU SEE ME?

How would you know if your child has a vision problem? Read what the experts have to say.

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While Myopia (or shortsightedness) is the most common among vision problems in young children, there are a number of other issues to look out for as well. Here's what you should know about your child's visual health.

Refractive Errors

"Refractive errors" is the technical term for some of the most common vision problems in children. A refractive error simply means that the shape of the eye is such that it does not bend light correctly, resulting in a blurred image. Myopia, hyperopia and astigmatism are all types of refractive errors.

Dr Tay Su Ann, consultant at the Paediatric Ophthalmology and Strabismus Department in the Singapore National Eye Centre, explains how exactly each vision problem comes about. She says, "Myopia, or near-sightedness, arises from the elongation of the eyeball which results in light rays from distant objects focusing in front of, instead of on the retina. On the contrary, hyperopia, or farsightedness, is due to a short eyeball, which results in light rays focusing behind, instead of on the retina. Most children are born with some degree of hyperopia, which gradually lessens as they become older. However, excessive amounts of hyperopia will require correction with spectacles."

"Astigmatism, on the other hand, is due to the imperfect curvature of the front part of the eye (the cornea), which prevents light rays from being focused onto the retina," says Dr Tay.

Prevalence

The rates of myopia and astigmatism in young Singaporean Chinese children are high – 11 per cent and

8.6 per cent respectively – reports a study published in the journal, *Investigative Ophthalmology and Visual Science*. However, hyperopia does not occur as often and exists at the low rate of 1.4 per cent.

Notice it

It's important that you pick up on the signs that your child may have a vision problem as early as possible so as to prevent further stress to your child's vision, or to prevent the condition from worsening.

Where significant refractive errors are concerned, Dr Tay explains that your child is likely to go close to things or hold things up close to his face in order to see. He may also demonstrate an abnormal head posture, such as a face turn or head tilt when looking at things.

If you notice your child doing that fairly consistently, take him for an eye exam.

Treatment

For myopia, having prescription glasses is the required treatment. However, it's also important to develop healthy eye habits to ensure the condition doesn't worsen. Dr Tay advises that your child should spend more time outdoors in the day and less time should be spent doing near work like reading or using handheld devices. "There have also been extensive studies on eye drops (e.g. atropine), contact lenses

and other interventions to slow down the progression of myopia in children," she adds.

Strabismus or Squint

Strabismus, which is also known as a squint, is the misalignment of the eyes. "Parents may notice that the child's eyes are not focused and that one eye drifts outward or inwards," explains Dr Cheryl Ngo, consultant at the NUH Eye Surgery Centre. Dr Tay adds that sometimes, strabismus may run in families; however, many children with strabismus have no relatives with the same problem.

Prevalence

In Singapore, strabismus is not as common as Myopia, and the overall prevalence in children is 0.8 per cent of the population, says another study published in the journal, *Investigative Ophthalmology and Visual Science*.

Notice it

According to Dr Tay, the drifting of your child's eye could be either "intermittent or constant." Similarly to significant refractive errors, a child with strabismus may also present with an abnormal head posture when looking at things.

Treatment

For strabismus, treatment varies according to the type of strabismus and the amount of control the child has over the drifting eye. Treatment ranges from "observation, prescribing glasses, eye exercises, or surgery to correct the misalignment," explains Dr Tay. Patching of the good eye may also be required if there is a risk of amblyopia or 'lazy eye' in the eye that drifts.



That said, getting the appropriate treatment is very important as if left untreated, strabismus can result in amblyopia or 'lazy eye'.

Amblyopia or "Lazy Eye"

When your child develops a lazy eye, this essentially means that the brain is only focuses on one eye, ignoring the other one. The weaker eye then sometimes wanders and vision in that eye is weak.

Prevalence

Amblyopia is among the top three most common vision problems in children, along with refractive errors and strabismus, with 1.19 per cent of the population in Singapore affected.

Treatment

"In order to correct amblyopia, the child needs to be encouraged to use the lazy eye. This is usually done by patching the good eye, for a number of hours a day, depending on the severity of the lazy eye and age of the

child. After the age of seven to eight, it is difficult to treat amblyopia as the development of the part of the brain which processes vision is almost complete. Hence, it is important that your child's eyes are checked at age four by the family doctor, paediatrician or ophthalmologist, or earlier if you suspect a visual problem," says Dr Tay.

Less Common Eye Problems

While most children who have vision problems are likely to have one of the above conditions, Dr Ngo gives us a list of the less common conditions that may also occur.

"Blocked tear ducts are common in the first year of life", she says. "Parents can recognise it when they see the child tearing a lot or if there is sticky discharge coming out from the eye." The condition is treated by regularly massaging the tear duct. If this does not help to clear it up, a surgical procedure may be required after your child turns one.

An eyelid oil gland infection, chalazion or styne presents as a lump on the eye and is common in young children. If you notice a lump, take your child in to see his doctor, who will usually prescribe warm compresses, antibiotic ointment, or in severe cases, the lump may need surgical drainage.

Children can also get conjunctivitis, cellulitis or an infection of the skin surrounding the eye. This usually presents as red, teary eyes, and is associated with viral upper respiratory tract infection, or is due to contact with someone who has a similar condition. According to Dr Ngo, viral conjunctivitis will usually self-resolve, but bacterial versions will need antibiotic eye drops.

It may come as a surprise, but cataracts can occur in young children. Dr Ngo explains that if the cataract is significant, surgical removal is needed and if not treated, it will lead to amblyopia which cannot be treated even if the cataract is removed when the child is older.

In general, when in doubt about whether your child has a vision problem or not, it's best to take him or her in for a checkup, just to be safe instead of sorry. ■

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