

## About Sight and Smile Centre

Sight and Smile Centre is a state-of-the-art eye and dental care facility established in 2008 in the heart of the Indian capital, New Delhi with the aim of providing world-class healthcare services at affordable costs to all sections of society. Located in Central Delhi, 100 metres from the Patel Nagar Metro station (on the blue line of the Delhi Metro transit system), the facility is also easily approachable by road. Vehicle parking facility is available. Spread over an area of 7200 sq ft, the centre is fully air-conditioned and has an elevator facility for patient convenience. It complies with all fire safety regulations. The comforting ambience, the warm atmosphere and cleanliness make it stand apart. Medical records of patients are maintained for future reference. The facility prides itself in having a fully-equipped ultra-modern eye operation theatre, which is one of the largest in the city. The centre is registered with the Directorate of Health, Govt. of NCT of Delhi and functions from 9 am to 9 pm (Monday - Saturday). Emergency services can be availed round-the-clock. Dr. Pankaj Malik heads the eye department while Dr. Jyoti Malik heads the dental department. It is our constant endeavour to provide such preventive and restorative services to patients that they have the best of sight and smile.



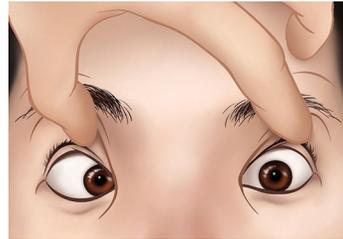
**Website: [www.sightandsmilecentre.com](http://www.sightandsmilecentre.com)**

**Address: 3/29, West Patel Nagar, New Delhi-110008  
Tel: 011-25882945**

**24 hours helpline: 0-85-0605-0705  
E-mail: [info@sightandsmilecentre.com](mailto:info@sightandsmilecentre.com)**

## **SQUINT**

**Crossed eyes**



**Crossed eyes are a major concern**

**Act fast, act early !**

Patient Information Brochure \*Not valid for legal purposes

## About the extraocular muscles

Each eye has six extraocular muscles which are located outside the eyeball and control the movements of the eyeball. One muscle moves the eye to the right side, one to the left while the other four move it up or down and also control the tilting movements of the eye.

All the six muscles of one eye must be balanced and working together with the corresponding muscles of the other eye in order to focus the two eyes on a target. The image of the target is relayed by the retina via the optic nerve to the brain. If both the eyes are lined up on the same target, the visual portion of the brain can fuse the two images into a single three-dimensional image. This creates **binocular vision and depth perception, the hallmarks of a human eye. When the eye muscles do not work together, misalignment of the eyes results.**

### What is squint?

**Squint, also called strabismus, is a misalignment of the two eyes wherein both the eyes do not look in the same direction at the same time and do not move together in parallel.** One eye is seen to point in the direction of gaze (normal eye) while the other points inwards, outwards, upwards or downwards (squinting eye).

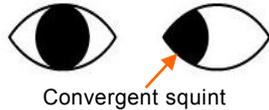
Squint may be constant (present throughout the day) or intermittent (occurring sometimes). It may also be alternate (in which either eye may deviate at a given point in time).

### Risk factors and causes of squint

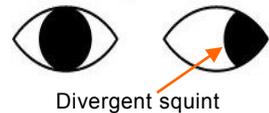
- Family history of squint.
- Premature birth.
- Inappropriate development of the “fusion center” of the brain.
- Problems with the “eye movement centers” of the brain.
- Injury to or diseases of eye muscles or nerves supplying these muscles.
- Long-sightedness or short-sightedness.
- Eye pathology like cataract, intraocular tumour or injury.
- Brain tumours.
- Raised intracranial tension (ICT).

## Types of squint

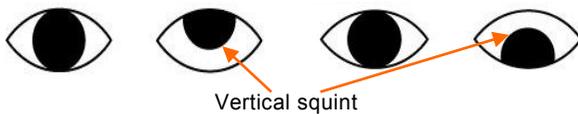
- ♦ **Convergent squint (esotropia):** In this type of squint, the eye is turned inward.



- ♦ **Divergent squint (exotropia):** In this type of squint, the eye is turned outward.



- ♦ **Vertical squint:** In this type of squint, the eye is misaligned vertically, either upward or downward.



## Symptoms of squint

In majority of cases, the parents usually notice the squint in their child. Symptoms of squint are:

- Eye turned inward, outward, upward or downward.
- Face turn / Head tilt.
- Double vision (diplopia) in some cases.

Sometimes, in infants and toddlers whose facial features are not fully developed, a wide and flat nose bridge along with prominent lid folds combine to give a false appearance of squint. This condition is called pseudo squint. In any case, an eye specialist must be consulted immediately so that the differentiation between true squint and pseudo squint can be made.

## Can squint affect vision?

Yes! The image sent by a squinting eye to the brain is neglected in favour of the image sent by the straight gazing (normal) eye. **The image from the squinting (misaligned) eye gets suppressed and ultimately the eye becomes lazy (amblyopic). Amblyopia causes decreased vision.** If the squint remains untreated, the vision is permanently switched off in that eye by the brain. When this happens during the critical visual development period, other facets of vision like binocular vision and depth perception also fail to develop.

## Why are binocular vision and depth perception so important?

Binocular vision helps with performance skills like catching, grasping and locomotion. It allows us to walk over and around obstacles with greater speed and more assurance. Depth perception allows us to see in three dimensions and judge the distance of an object accurately.

## Importance of early treatment

Everyone has heard people saying “The child is too small. We will address the issue of squint once the child grows up” . Some people feel that the squint will correct on its own as the child grows. *These misplaced notions borne out of ignorance are the reason why many children with squint are brought for an eye examination when the critical visual development period (from birth to three years of age) has passed and profound amblyopia has set in.*

## Treatment of lazy eye (amblyopia)

Amblyopia treatment is done before considering any surgery for squint. However, it may also have to be continued following surgery. Treatment includes:

- ♦ **Spectacle use.**
- ♦ Forcing use of the amblyopic eye by **patching (occluding) the normal eye.** This can help to improve vision in the lazy eye.
- ♦ **Vision therapy (orthoptic exercises):** These eye exercises may be home-based or office-based (using a synoptophore).
- ♦ **Surgical removal of media opacities** such as in congenital cataract.



Spectacles



Patching



Synoptophore

## Treatment of squint

Squint does not correct on its own. Treatment should begin as early as possible, irrespective of age. Treatment is aimed at:

- realigning the squinting eye.
- preserving and improving vision.
- attaining / restoring binocular vision and depth perception (stereopsis).
- preventing amblyopia.

Treatment options overlap with those of amblyopia treatment and include spectacles, patching, orthoptic exercises, surgery or a combination of these.

- ♦ **Spectacles:** Squint occurring as a result of refractive errors can be completely corrected with spectacles alone. Prisms may also be used in spectacles to treat squint.
- ♦ **Patching:** The straight gazing eye is patched in order to stimulate vision development in the squinting eye and prevent amblyopia. Patching may need to be continued for years and requires regular check-up.
- ♦ **Orthoptic exercises:** These involve eye muscle exercises.
- ♦ **Surgery:** This involves realignment of the muscles located outside the eyeball in order to straighten the eye and is achieved by shortening or loosening the muscles. It may be done on one or both eyes.



Before surgery



After surgery

## Can squint occur in adults?

Yes! Causes of squint in adults are different from those in children and include thyroid eye disease, orbital fractures, post retinal detachment surgery, myasthenia gravis and paralysis of eye muscles due to diabetes and hypertension, to name a few.

Adults who have developed squint often complain of double vision (diplopia). This is a result of binocular vision that has already developed in their childhood and the inability of the brain to suppress the image projected from the deviated eye.