



**University  
Hospitals Sussex**  
NHS Foundation Trust

# Sixth (VI) nerve palsy

Orthoptic Department  
St Richard's Hospital  
Southlands Hospital

**Patient information**

This leaflet is intended to answer some of the questions of patients or carers of patients, diagnosed with sixth nerve palsy under the care of University Hospitals Sussex NHS Foundation Trust.

## What is sixth (VI) nerve palsy?

Sixth nerve palsy is weakness of the cranial nerve that innervates (moves) the lateral rectus muscle. The lateral rectus muscle pulls the eye away from the nose and when the lateral rectus muscle is weak, the eye turns inwards towards the nose (esotropia).

Patients with VI nerve palsy are unable to move their eye outwards away from the nose. The degree to which this movement is affected will vary from person to person and may be complete (no movement at all) or partial.

## What causes sixth nerve palsy?

**The most common causes of VI nerve palsy are:**

**In children;**

- Congenital (present from birth)
- Trauma.

**In older adults;**

- High blood pressure
- Diabetes
- TIA (Transient Ischemic Attack)
- Stroke.

Other causes may include trauma, viral illness, brain tumour, inflammation, infection, migraine and elevated pressure inside the brain. These are seen less frequently.

Sometimes the cause of the palsy is not determined despite extensive investigation.

## How is it diagnosed?

The orthoptist will examine the eye movements and position of the eyes taking various measurements. Once a VI nerve palsy is diagnosed you may be asked to have blood tests or in some cases a CT or MRI scan.

If the doctor knows you are diabetic, have had a stroke or have other general health risk factors then often no further investigations are necessary, providing the VI nerve palsy shows signs of recovery.

Your orthoptist will repeat the measurements at regular intervals to monitor any changes. Should your condition change dramatically between appointments you are advised to telephone the Orthoptic department.

## What are the symptoms of sixth nerve palsy?

Double vision is the most common symptom. The double vision may be worse when looking to one side and when looking into the distance.

Depending on the severity, some patients will be symptom-free for close work or when looking to one side.

Children under five typically do not experience persistent double vision, but can develop amblyopia (reduced vision) in one eye.

## Does sixth nerve palsy improve with time?

Yes, in many cases.

The amount of improvement depends upon the cause. VI nerve palsies caused by viral illness generally resolves completely; as do those from diabetes or mild blood vessel disease.

Some patients may experience improvement but not complete recovery and may be left a residual muscle weakness.

The orthoptist and ophthalmologist can advise you on the long-term management options available to you.

Maximum improvement usually occurs during the first six months after onset, but may occur up to 18 months after the start of symptoms.

Congenital sixth nerve palsy is unlikely to resolve spontaneously.

## How can double vision be treated?

Prisms added to or incorporated into spectacles can realign the images and allow single, binocular vision in straight ahead gaze.

Because the degree of the misalignment varies in different gaze positions, prism correction does not always eliminate double vision in every gaze position.

The power of the prism can be reduced as the palsy improves. Patching one eye eliminates double vision, however, this treatment must be carefully monitored in children to avoid the development of amblyopia.

## Can long-term sixth nerve palsy be fixed?

After observation (usually 12 months), surgery may be performed to reduce double vision or to improve the appearance of the eyes.

## Are there any other associated signs or symptoms?

Hearing loss, facial weakness, decreased facial sensation or droopy eyelids can be associated with VI nerve palsy depending on the cause.

If you have any of these symptoms please mention them to your orthoptist.

## Contact numbers

**Orthoptist:**

**St Richard's 01243 831499**

**Southlands 01273 446077**

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