

Sixth (VI) Nerve Palsy

Sixth nerve palsy affects eye movement and can cause double vision; this leaflet explains causes and treatments.

Orthoptic Department

What is this leaflet about?

This leaflet is for patients or carers of patients who have been diagnosed with sixth nerve palsy and are under the care of University Hospitals Sussex NHS Foundation Trust.

It aims to explain what sixth nerve palsy is, what causes it, how it is diagnosed, and what treatment options are available.

What is sixth (VI) nerve palsy?

Sixth nerve palsy happens when there is weakness in the sixth cranial nerve. This nerve controls a muscle called the lateral rectus, which moves the eye outward (away from the nose).

If this muscle is weak, the eye turns inwards, toward the nose. This is called esotropia.

People with sixth nerve palsy may not be able to move one eye outward.

The amount of movement that is lost can vary, in some people it may be complete, in others only partial.

What causes sixth nerve palsy?

Sixth nerve palsy happens when there is weakness in the sixth cranial nerve. This nerve controls a muscle called the lateral rectus, which moves the eye outward (away from the nose).

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What causes sixth nerve palsy?

In children, common causes include:

- being born with it (congenital)
- head injury.

In adults, common causes include:

- high blood pressure
- diabetes
- tia (mini-stroke) or stroke

Less common causes (in both children and adults) include:

- viral infections
- brain tumours
- inflammation
- infections
- migraine
- raised pressure in the brain
- trauma.

In some cases, no clear cause is found, even after full investigation.

How is it diagnosed?

An orthoptist will test your eye movements and check how your eyes are aligned using special measurements.

You may also be asked to have:

- blood tests
- a CT or MRI scan (if needed).

If you have known risk factors like diabetes or stroke, and your condition is improving, further tests may not be necessary.

Your orthoptist will monitor your progress by repeating tests at regular appointments.

If your symptoms suddenly change, please contact the Orthoptic Department.

What are the symptoms of sixth nerve palsy?

The most common symptom is double vision (seeing two images).

This is often worse:

- when looking to the affected side
- when looking into the distance.

Some people may not notice double vision at all, especially when looking up close or to one side.

Children under 5 often don't report double vision, but they may develop amblyopia (a lazy eye) in the weaker eye.

Will sixth nerve palsy get better?

Often, yes.

Improvement depends on the cause:

- cases linked to viral illness, diabetes, or minor blood vessel issues often recover fully
- some people recover partially but may still have some weakness
- congenital cases (from birth) usually do not improve on their own.

Most recovery happens in the first 6 months, but some improvement can occur up to 18 months after symptoms begin.

Your orthoptist and eye doctor will talk to you about your options for managing symptoms long-term.

How is double vision treated?

There are a few ways to manage double vision:

- Prisms can be added to glasses to help align the images and give single vision when looking straight ahead
 - **Note:** Prisms may not work in all directions of gaze
 - As the nerve heals, the prism strength can be reduced
- Patching one eye can stop double vision
 - In children, this needs to be carefully monitored to avoid a lazy eye (amblyopia).

Your orthoptist will help decide the best option for you or your child.

Can long-term sixth nerve palsy be fixed?

If the palsy hasn't improved after about 12 months, surgery may be considered.

Surgery can help to:

- Improve the alignment of the eyes
- Reduce or eliminate double vision
- Improve appearance.

Your ophthalmologist will discuss this with you if needed.

Are there other symptoms I should watch for?

Yes. In some cases, sixth nerve palsy can occur with:

- Hearing loss
- Weakness on one side of the face
- Loss of feeling on the face
- Droopy eyelids.

If you notice any of these symptoms, tell your orthoptist or doctor as soon as possible.

Contact details

If you have questions or need to speak to the Orthoptic team:

St Richard's Hospital

01243 831499

Southlands Hospital

01273 446077

Sussex Eye Hospital Orthoptists

01273 664872

Princess Royal Hospital Orthoptists

01444 441881 Ext. 68305

Useful information

For more about children's eye conditions, glasses, patching, and vision development visit:

Squintclinic www.squintclinic.com

Today's research is tomorrow's treatments.
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and Sussex Eye Hospital.

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