

Contact Details

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Orthoptic Department option 5
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Patient Information Leaflet

4th Nerve Palsy



Please speak to a member of staff if you need this leaflet in large print, braille, audio or another language

Introduction

This leaflet provides you with information on 4th Nerve Palsy.

It is not meant to replace the discussion between you and your Doctor/Healthcare Professional but may act as a starting point for discussion.

If after reading it you have any concerns or require further explanation, please discuss this with a member of the Healthcare Team who has been caring for you.

What is a 4th Nerve Palsy?

The 4th nerve usually carries information from the brain to the eye movement muscle, that moves the eye down and in towards the nose.

A palsy is when the signal along the nerve is interrupted, causing weakness of the muscle(s) it usually supplies.

You can have a complete 4th Nerve Palsy, where the muscle has no partial function where the muscle is weakened.

What causes 4th Nerve Palsy?

A nerve palsy can be congenital (from birth) or acquired later in life.

Surgical correction of double vision

If there is some residual eye muscle weakness after a period of recovery or no recovery has occurred, surgery on the eye movement muscles can sometimes improve double vision.

The Orthoptist will check that everything is stable, measure the position and movement of the eyes and test to help predict the likely surgical outcome.

What can I do to help prevent Nerve Palsy?

To help prevent further nerve palsies or microvascular problems, please visit your GP. This will ensure you are getting the best treatment possible for any other health condition(s) you may have.

It may also be appropriate to review your lifestyle to see if you can make any improvements. These could contribute to better microvascular health, such as:

- Giving up smoking.
- Doing more exercise.
- Improving your diet.

Using Prisms to correct double vision

- Prisms can sometimes be used to join double vision back to single.
- Prisms cannot be used for images that are tilted, so therefore prisms are not always suitable for people with a 4th nerve palsy.
- The prism bends light to move the displaced images closer together.
- Prisms come in different strengths. The best one for you can be assessed by the Orthoptist and it can be changed if your symptoms change.
- At first you will be given a temporary prism which will be stuck onto your own glasses or a plain pair of glasses from the hospital.
- Long term some prisms can be incorporated into your glasses lens (This would usually be 6 months or more after the 4th Nerve Palsy started.)

There are various different causes of acquired nerve palsies and the Orthoptist and Ophthalmologist will consider which is most likely in your particular case.

The possible causes include:

Microvascular: A disruption of the blood supply to the nerve. This can be due to diabetes, high blood pressure, high cholesterol or smoking. The blood supply to the nerve can also be affected by a stroke.

Trauma (head injury) causing damage to the nerve. This is common for 4th nerve palsies because of the route the nerve takes.

Inflammation of the nerve (due to infection or virus).

Space-occupying lesion: This could be a tumour or aneurysm pressing on the nerve. Sometimes the lesion is not near the nerve, but it causes a build-up of pressure in the head that in turn compresses the nerve.

Demyelination: Degeneration of the protective coating of the nerve which occurs in conditions like MS.

Surgery: Damage to the nerve can occur during surgery or due to post-op swelling.

Migraine: Ophthalmic migraines can occasionally cause nerve palsies.

Will it get better?

This will depend on the cause. Often, once the cause for the 4th Nerve Palsy has been treated the function of the nerve improves.

Microvascular nerve palsies commonly recover on their own. This usually occurs in about 6 months or less.

Recovery can be complete or partial. In a partial recovery some muscle weakness is still apparent long term.

Will I need more tests?

You will probably need tests to find out the cause of the 4th Nerve Palsy. This may include blood tests or scans.

The Orthoptist and Ophthalmologist will decide which tests you need, and refer you to other departments, such as neurology or stroke teams if necessary.

You will also need repeat Orthoptic testing. This is important to track any changes on your eye muscles and eye position and find out if the 4th Nerve Palsy is getting better or worse.

It is also helpful to do these tests to see how to best manage any symptoms you have.

What are the treatment options?

The condition or problem that has caused the 4th Nerve Palsy may require treatment. This will be different for each of the conditions and involve other specialists.

A microvascular 4th Nerve Palsy sometimes does not require any active treatment, or it may have been caused by a condition for which you are already receiving treatment for example, high blood pressure.

Treatment for conditions caused by 4th Nerve Palsy

Double vision: Some people with 4th Nerve Palsy have double vision because their eyes no longer move and work together. The type and severity of the double vision will vary between people. Some people can control their double vision better if they adopt a compensatory head posture. You might do this without realising or your Orthoptist can give you advice about it.

Sometimes using a patch or clouded lens for one eye is more appropriate to get rid of the double vision, especially if the 4th is severe or things are changing with your eyes.

Prisms can be helpful in the short or long term.