

## What can I do to help prevent Nerve Palsy?

To help prevent further nerve palsies or microvascular problems, please visit your GP to 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 that could contribute to better microvascular health, such as giving up smoking, doing more exercise or improving your diet.

If you have any questions concerning your vision please speak to your Orthoptist or a member of the Healthcare Team that has been caring for you.

### Contact Details

<b>Eye Unit</b>	<b>Tel: 01782 676001</b>
<b>Orthoptic Department</b>	<b>option 5</b>
<b>Emergency Eye Department</b>	<b>option 1</b>

## Patient Information Leaflet

# 3rd 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 3rd 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 3rd Nerve Palsy?

The 3rd cranial nerve usually carries information from the brain to 4 of the 6 eye movement muscles, the main eyelid muscle and the pupil.

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 3rd Nerve Palsy, when all 4 eye movement muscles, the eye lid and pupil are all affected. A partial 3rd Nerve Palsy is when only one or more muscle is affected.

It is most likely to have a 3rd Nerve Palsy affecting one eye, but it can affect both.

Long term some prisms can be incorporated into your glasses lens (This would usually be 6 months or more after the 3rd Nerve Palsy started.)

Because several eye movement muscles can be affected at the same time in a 3rd Nerve Palsy, it can be difficult to get the vision back to single with a prism. This is because the misalignment of the eyes is different in different positions.

## 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 success of the surgery will depend on how many muscles have been affected by the 3rd Nerve Palsy and to what extent they have been affected.

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.

**Double vision:** Some people with 3rd 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.

Short term double vision is eliminated by keeping the eyelid covering one eye, or covering one eye with a patch or a blurred lens. This is usually the best option early on, especially if things are changing with your eyes.

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.

### Using Prisms to correct double vision

Prisms can sometimes be used to join double vision back to single. The prism bends light to move the displaced (moved) 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.

### What causes 3rd Nerve Palsy?

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

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 stroke.

**Trauma** (head injury) causing damage to the nerve.

**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 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.

## How can 3rd Nerve Palsy affect my eyes?

Because the 3rd nerve controls several eye muscles it can affect the eyes in different ways.

It can cause a droopy eyelid and can also affect the position of the eye. This can lead to double vision if the eyes are no longer aligned together. Because the pupil may be affected, this can lead to light sensitivity and blurry vision.

## Will it get better?

This will depend on the cause. Often, once the cause for the 3rd 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 3rd 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 3rd 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 3rd Nerve Palsy may require treatment. This will be different for each of the conditions and involve other specialists.

A microvascular 3rd 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 tablets).

## Treatment for conditions caused by 3rd Nerve Palsy

**Droopy eyelid:** If you have got a droopy eyelid as a result of your 3rd Nerve Palsy, you may choose to leave it covering one eye as it can eliminate any double vision.

If there is no recovery of the eyelid position, surgery or “ptosis props” can be considered to raise the lid.