

# VISUAL PROBLEMS AFTER A STROKE

Often it is some type of sight defect that gives you the first inkling that you have had a stroke.

A stroke happens when the blood supply to your brain is interrupted in some way. A blood vessel may become blocked or alternatively a blood vessel may burst and bleed. The affects may be temporary or permanent and can affect thinking, speech, movement and the senses, including vision.

Visual problems following a stroke are common. These are often caused by damage to the visual pathway which carries information from your eye to the back of your brain, where it is processed. This damage may be temporary or permanent: unfortunately it is difficult to predict if you will recover from your visual problems and any recovery may only be partial.

The area and extent of your stroke will determine the types of visual problems you have. The most common symptoms are:

- loss of part of your visual field (peripheral field loss)
- blurred or double vision
- reduced awareness to one side (visual inattention/neglect)
- difficulty reading



Though distressing, in many instances aids and strategies are available to help you cope more effectively. It is

recommended that everyone who has had a stroke is screened for visual problems.

However, speak to your GP, optician (optometrist) or a member of the stroke team staff if you are concerned. You may need to be referred to an eye specialist.

- An ophthalmologist specialises in the diagnosis and treatment of eye disease.
- An orthoptist specialises in the assessment of eye disorders such as muscle balance and visual fields.

There may be local visual-impairment services available for you to be referred on to. Contact the RNIB for details (see Useful addresses and websites section at end of this factsheet).

FACTSHEET

## CHEST HEART & STROKE SCOTLAND

Rosebery House • 9 Haymarket Terrace • Edinburgh EH12 5EZ

Tel: 0131 225 6963 • Fax: 0131 220 6313 • Advice Line Nurses: 0808 801 0899

Email: [adviceline@chss.org.uk](mailto:adviceline@chss.org.uk) • Website: [www.chss.org.uk](http://www.chss.org.uk)

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## Reduced vision

It is common to experience a reduction in vision as you age. A stroke may be associated with a pre-existing health problem such as high blood pressure (hypertension) or diabetes. Some reduction in vision may be a direct result of your high blood pressure or diabetes rather than your stroke. The combination of reduced vision following a stroke and any pre-existing reduced vision can be very debilitating. Examination is required by a specialist so that the cause of your reduced vision can be established and the appropriate treatment prescribed.

## Visual field loss

About 20 - 50% of people with a stroke have some visual field loss (hemianopia), making it the most common problem associated with vision. Visual field loss is an inability to see either to the right or to the left of the centre of your field of vision.

This type of visual loss is directly related to the site of your stroke in your brain. Both eyes will be affected, but the effect may be different in each eye. Damage to the visual pathway, not the eye itself, results in loss of sight on one side in both eyes.

Left visual field loss results in loss of some, or all, of your vision on the left side, while right visual field loss results in loss of some, or all, of your vision on the right side. However, you may or may not be aware of this loss of vision.

Other people may notice that you don't appear to see objects on one side of you, or you may bump into things quite easily. Accurate assessment of your visual field is needed to reveal visual field loss.

Visual field loss has obvious dangers, for example if you are crossing the road you may not be aware of cars coming from one side. Therefore, it is important for you and your carer to be aware of the problem. Some orthoptists and some agencies, that assist people with visual disabilities, offer training on how to compensate for visual field loss. For example, you are taught to get into the habit of turning your head and eyes, and therefore minimise the effect on day-to-day activities.

If visual field loss makes reading difficult, there are strategies to help. Place a ruler under each line as you read or ask for a typoscope (a piece of card with a pillar-box slit) that



allows you to read only one line of text at a time. Drawing a line down the left-hand side of the page with a marker pen or holding a coloured ruler vertically can also help with left visual field problems. Reading can be particularly difficult if you suffer right visual field loss. Markers can be beneficial, but it may be best to try reading with a 'Steady Eye Strategy'. This technique can be taught by eye care specialists.

Field loss may occur together with visual neglect. This is a condition that results in people having a lack of visual awareness to one side (typically to their left). Visual neglect can also occur in isolation and its presence can make rehabilitation more difficult. It is important that visual field loss or visual neglect is accurately identified by eye care professionals.

### **Eye movement**

A stroke may cause a wide variety of eye movement disorders. You may experience a disturbance of rapid eye movements (saccades), which normally allow you to look from one object of interest to another. This may lead to difficulties with activities such as reading, sewing, playing cards etc.

Disruption of slow eye movements (smooth pursuits) results in an inability to follow slow moving objects accurately. Compensatory fast jerky movements may replace slow eye movements. This may make it difficult to keep your visual attention on one object of interest. Sometimes the damage will repair itself, but in the meantime you have to be instructed to make compensatory head movements. Recognising the problem is important – to understand the difficulties carers also need to understand what is going on.

### **Double vision**

People who have never had double vision (diplopia) do not realise how challenging and debilitating it is. It can make you feel dizzy, sick and make you lose your balance. Double vision is common when a stroke affects the back of your brain. Double vision can make everyday activities very difficult and cause safety issues. For example, when making a cup of tea you can miss the teapot with the boiling water as you see two teapots.

Traditionally, treatment was to wear a patch over one eye. However, this causes the loss of 3-D perception, making previously straightforward tasks more difficult and may increase the risk of falls. More sophisticated 'frosted' patches can be stuck onto one lens of your glasses to allow peripheral vision only. However, the best treatment is to have prisms fitted to your glasses by an orthoptist. This enables the double images to be seen as single and enables 3-D vision to be restored. They don't work in every case, but when they do, they are very successful.



## Driving

For safety reasons the DVLA (Driver and Vehicle Licensing Agency) has strict guidelines about who may and may not drive.

Some visual problems following a stroke mean that you will not be allowed to drive, e.g. visual field loss and double vision.

Your GP will be able to tell you if you need to inform the DVLA about your stroke. He / she should be able to give you advice on whether you should drive while medical enquiries are being made. Full information is on the government website: [www.direct.gov.uk/driverhealth](http://www.direct.gov.uk/driverhealth)

See the CHSS factsheet "Driving after stroke" for more information.

## Sources of support

Living with visual problems can be very frustrating and can affect your confidence and rehabilitation following your stroke. You may feel a sense of isolation which can add to any feelings of anxiety and depression you may have.

It is important to get help to identify what visual problems you have and find coping strategies to help improve your quality of life.

An ophthalmologist can examine you and assess whether you are able to be registered as either blind or partially sighted. If your ophthalmologist feels that you do qualify, they will complete a certificate of vision impairment and send it to your local social services department. You will then be contacted to find out what help and advice you need. This can include help around your home as well as developing skills to help regain some independence / control.

## Useful addresses and websites

### Royal National Institute for the Blind Scotland (RNIB)

12-14 Hillside Crescent Edinburgh EH7 5EA

Tel: 0131 652 3140 • UK Helpline: 0303 123 9999

Website: [www.rnib.org.uk](http://www.rnib.org.uk) • Email: [rnibscotland@rnib.org.uk](mailto:rnibscotland@rnib.org.uk)

Contact RNIB Scotland for details of visual impairment services in your area and information about visual aids and equipment.

*(Photo on page 2 used with kind permission of Christine Hazelton, Glasgow Caledonian University.)*

If you would like to speak to one of our nurses in confidence,  
please call the Chest Heart & Stroke Scotland Advice Line

**0808 801 0899**

Free from landlines and mobiles.