

# Visual Field Loss After Stroke

Chest  
Heart &  
Stroke  
Scotland



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You might also find it helpful to look at the other resources in this series on:

- **Vision after Stroke**
- **Visual Neglect**
- **Double Vision**

## Key Points

- Your visual field is everything you can see.
- A stroke can affect the visual pathways that transmit visual information from your eyes to your brain. This can cause loss of parts of your visual field.
- There are several types of visual field loss - **homonymous hemianopia, quadrantanopia,** and **bitemporal hemianopia.** Homonymous hemianopia is where one side of your visual field is lost, it is by far the most common.
- Visual field loss can impact every part of living and can increase risk of danger when navigating. It can also make it difficult to read or write.
- You should have a clinical eye assessment and receive support from an **orthoptist, optometrist,** and **visual rehabilitation specialist.**
- If you are experiencing visual field loss, you cannot drive without the agreement of the **DVLA.** You need to inform the DVLA of your visual field loss if present after one month of having had a stroke.

# What is visual field loss?

Your visual field is the area you see in front of you and to the sides. After a stroke, you may find that less of this area is visible, a condition called visual field loss.

Visual field loss after stroke is caused by damage to visual pathways in the brain, not the eyes. It can feel as though one of your eyes has stopped working, but it usually impacts the vision in both eyes. If you close the eye on the affected side, you will still find that parts of your vision are missing.

Visual field loss may result from a stroke affecting the visual cortex (the area which receives and processes visual information from the eyes). Or it may be due to changes in how information is transmitted through your brain.

Other people may notice the change in your vision before you do. You may appear more 'clumsy', bump into things, or have difficulty reading or seeing the world around you. A full assessment of your visual field is needed to diagnose visual field loss.

## Types of visual field loss

Your visual field loss can affect your ability to see objects at the sides, away from your central line of sight. Most often, this means that you lose the left or the right side of your vision (homonymous **hemianopia**). Homonymous hemianopia affects the visual field in both eyes. If you close one of your eyes you will still experience visual field loss in your open eye.

There are also other types of visual field loss, like **quadrantanopia** (a quarter of your visual field lost in both eyes) or bitemporal hemianopia (this a loss of your peripheral vision on both sides). The type of visual field loss will depend on the area of your brain affected by stroke.

If you want to show someone how your condition affects your vision, there are illustrations of different types of field loss on the following pages.

## How visual field loss can affect you

Visual field loss can affect your daily life in many ways. You may:

- Bump into objects that seem obvious to others.
- Find it difficult to locate items.
- Become lost in a familiar environment.
- Veer or tip to one side on the pavement.
- Have difficulty reading and writing.
- Trip or fall over unseen objects.

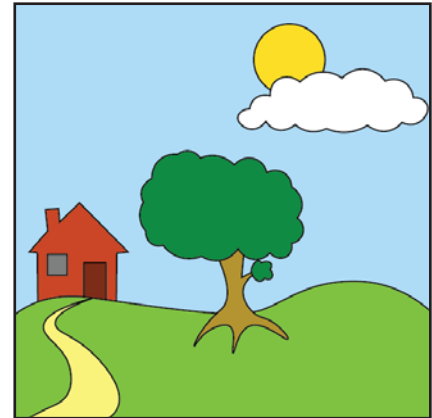
People who have visual field loss who are not able to compensate are at higher risk when crossing the road.

## Visual fields

The following illustrations demonstrate how someone with different types of visual field sees the world with both eyes open.

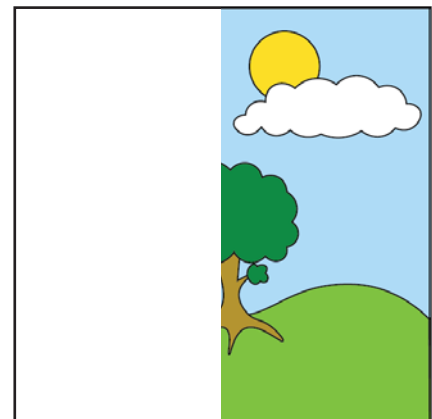
### Normal vision:

This image on the right shows a cartoon view of a house, a tree, and a sun, without any loss of vision interrupting the image.



### Homonymous hemianopia:

This image on the right shows the same cartoon view as before, but as it would be seen by someone with left sided homonymous hemianopia. The left half of the image is blocked out, meaning that the house and half of the tree are no longer visible.

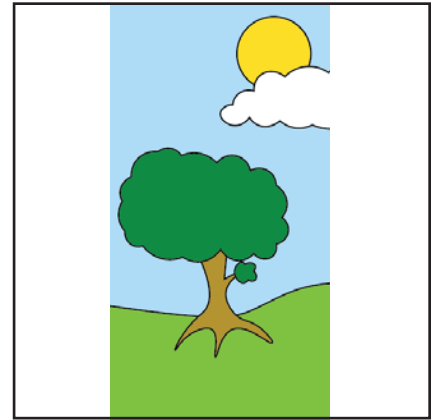


continued ...

## Illustrating visual field loss

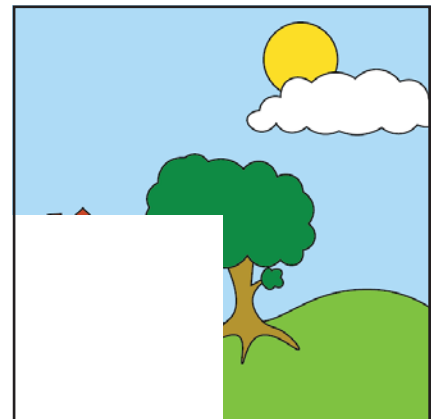
### **Bitemporal hemianopia:**

This image on the right shows the same cartoon view as before, but as it would be seen by someone with bitemporal hemianopia. It shows that both outer edges of the view are blocked out.



### **Quadrantanopia:**

This image on the right shows the same cartoon view as before, but as it would be seen by someone with lower left quadrantanopia. It shows that the lower quarter of the view is blocked out, obscuring the house and part of the tree. Any quarter of the vision might be affected.



# Living with visual field loss

## Scanning and awareness techniques

Scanning can help compensate for visual field loss.

Compensatory scanning means you use your remaining vision (the side of good visual field) to see over to the side with visual field loss (the side that is missing). You may have to turn your head or move your eyes to do this.

Compensatory scanning is a key part of your visual rehabilitation. Speak to your orthoptist and/or visual rehabilitation specialist for information on techniques.

Compensatory scanning techniques will not cure visual field loss but can help you to get the most out of your remaining field of vision and increase your safety.

Online training programmes for learning scanning techniques include:

**Visibility Scotland:** [visibilityscotland.org.uk/knowledge/scanning-as-a-visual-field-loss-compensatory-strategy/](https://visibilityscotland.org.uk/knowledge/scanning-as-a-visual-field-loss-compensatory-strategy/)

**Eye-Search:** [eye-search.co.uk](https://eye-search.co.uk)

**Read-Right:** [readright.ucl.ac.uk](https://readright.ucl.ac.uk)

## Walking and scanning techniques

Walking and using compensatory scanning techniques at the same time can be tricky. It is important you move carefully. It is vital to remain safe when learning and implementing scanning.

We recommend getting support from a vision rehabilitation specialist if you are experiencing visual field loss. When you start using scanning techniques whilst walking outside your home it is important you have someone with you for support.

### Here are some tips:

- Ensure you remain in the middle of the pavement, away from any street clutter (like lamp posts) and high risk zones.
- Initially the person walking with you should be on the side of visual field loss.
- Once you are more confident, ask them to switch to your unaffected side.

## Reading techniques

Depending on which side you have visual field loss you may find the beginning or end of a line of text hard to find.

### Here are some tips:

- You can use a marker, vertically placed ruler, post-it notes or your thumb to indicate the beginning or end of a line.
- It may help to tilt the text and read it vertically.
- A **typoscope** (a piece of card with a rectangle box cut out) or a bar magnifier (a long thin magnifier with a guideline on it) can make it easier to focus on one line of text at a time.
- Using high contrast on documents, 1.5 line spacing, and a minimum font size of 14 can also support reading.
- Speech to text and assistive technology can also be very beneficial. This includes text to speech and speech to text. There are also many useful reading and visual rehabilitation apps.

## Optical aids

Optical aids may also be a benefit to you. This includes anti-glare wrap around glasses, prisms, and magnifiers. We recommend you speak to your eye healthcare professional before using any optical aids.

## This factsheet is produced by three charities:



### **Chest Heart & Stroke Scotland**

Information, advice, and support for chest, heart, stroke, and Long Covid conditions.

Tel: **0808 801 0899**

Text: **ADVICE to 66777**

Email: **adviceline@chss.org.uk**

Web: **chss.org.uk**



### **Visibility Scotland**

Person-centred services to people of all ages affected by vision impairment and blindness, empowering them to reach their goals and aspirations.

Tel: **0800 987 1087**

Web: **visibilityscotland.org.uk**

Email: **info@visibilityscotland.org.uk**

**R N I B**

### **The Royal National Institute of Blind People (RNIB)**

Information, support, and advice on living with sight loss and stroke-related eye conditions.

Tel: **0303 123 9999**

Email: **helpline@rnib.org.uk**

Web: **rnib.org.uk**

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You can also go to our website for information, advice and support: [www.chss.org.uk](http://www.chss.org.uk)

Find a range of easy-to-read booklets and factsheets at our resources hub:

[www.chss.org.uk/resources-hub](http://www.chss.org.uk/resources-hub)



Scan here to see all our resources!



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## Chest Heart & Stroke Scotland

2nd Floor, Hobart House

80 Hanover Street

Edinburgh EH2 1EL

Tel: 0131 225 6963

Scottish Charity Number: SC018761

Limited company number: SC129114

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