

WHAT IS VASCULAR DEMENTIA?



INTRODUCTION

The information in this booklet is for anyone who wants to know more about vascular dementia, including people living with vascular dementia, their carers, families and friends. This booklet gives an overview of the causes, symptoms, diagnosis and treatments.

This information does not replace any advice that doctors, nurses or pharmacists may give you. If you are worried about your health, including memory and thinking problems, you should speak to your doctor as soon as possible.

This booklet was updated in December 2025 and is due for review in December 2027. It was written by Alzheimer's Research UK's Information Services team with input from lay and expert reviewers. Please get in touch using the contact details below if you'd like a version with references or in a different format.

ANY QUESTIONS

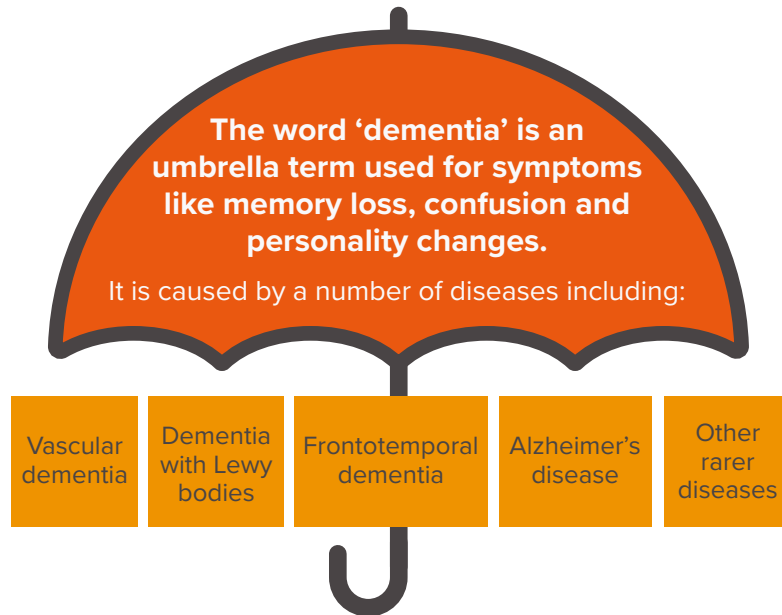
If you have questions about dementia or dementia research, you can contact our Dementia Research Infoline on **0300 111 5111** or email infoline@alzheimersresearchuk.org or write to us using the address on the back page.

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WHAT IS DEMENTIA?

Dementia is caused by diseases that affect the brain. Vascular dementia is the second most common disease that causes dementia, after Alzheimer's disease.



The symptoms of dementia get worse as time goes on. So, over time a person with dementia will need more help and support with everyday life.

It is possible to have more than one type of dementia at the same time. So, some people may have vascular dementia and Alzheimer's disease, or vascular dementia and dementia with Lewy bodies. This is called mixed dementia.

WHAT IS VASCULAR DEMENTIA?

Vascular dementia is caused by damage to blood vessels in the brain.

Our blood contains oxygen and nutrients that help brain cells to work properly. When blood vessels are damaged, less blood reaches the brain. This can affect how brain cells work.

If this damage spreads, over time it can lead to symptoms of vascular dementia, like memory and thinking problems.

TYPES OF VASCULAR DEMENTIA

Different types of vascular dementia are caused by problems with blood flow in the brain. The most common conditions that damage the brain in vascular dementia are described on the following pages.

Not everyone is told the specific cause for their vascular dementia, and it is possible to have more than one type of vascular dementia.

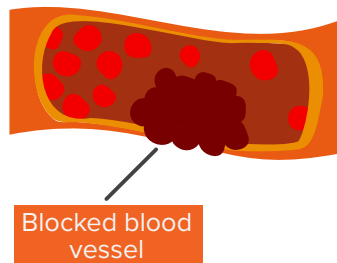
POST-STROKE VASCULAR DEMENTIA

Strokes are a common cause of vascular dementia. During a stroke, blood supply to a part of the brain is suddenly cut off. There are two main types of stroke:

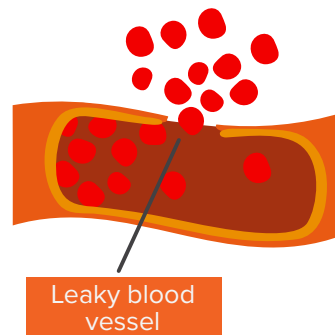
1. When a large artery within the brain becomes blocked, blood can't get around the brain efficiently. This can happen for different reasons, including a blood clot or a build-up of fatty deposits. This is called an **ischaemic stroke**.
2. If an artery bursts and blood leaks into the brain, this diverts blood away from other areas of the brain. It could also allow any waste being cleared in the blood to re-enter the brain. This is called a **haemorrhagic (bleeding) stroke**.

Both types of stroke damage nearby brain cells. This leads to symptoms like headaches and dizziness. Other symptoms will depend on where in the brain the stroke occurs.

Ischaemic stroke



Haemorrhagic stroke



If someone has sudden problems with memory and thinking after a stroke that do not improve over time, they may be diagnosed with post-stroke vascular dementia. Although a single stroke can cause vascular dementia, it is more likely to develop after more than one. Dementia after several strokes is sometimes known as 'multi-infarct' dementia. The word 'infarct' means that an area of the brain has had its blood supply cut off and the brain has become damaged.

People who have a stroke are more likely to have more strokes. So, it's really important to take steps to look after your brain health. You can find more about this on page 23.

Sometimes people can have mini-strokes, also known as transient ischaemic attacks or TIAs. TIAs have the same symptoms as strokes but are reversible and symptoms go away after a day or two. People who have TIAs are at increased risk of having a stroke in the future, so also need a proper medical assessment and to look after their brain health.



**ROUGHLY ONE IN THREE
PEOPLE WHO HAVE
A STROKE GO ON TO
DEVELOP DEMENTIA.**



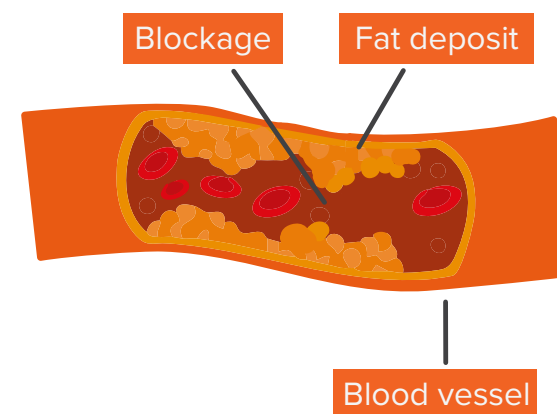
BLOOD VESSEL DISEASES

Blood vessel diseases can also cause the brain damage that leads to vascular dementia. Some common blood vessel diseases are explained below.

Cerebral amyloid angiopathy (CAA) is a common condition where a harmful protein builds up in the walls of blood vessels in the brain. This makes the vessels narrower and more likely to leak. This increases the risk of stroke.

Small vessel disease (SVD) is caused by damage to tiny blood vessels deep in the brain. At first, this may not cause noticeable symptoms. But as damage builds up, it can lead to mini-strokes and dementia. Unlike the sudden effects of a stroke, SVD causes a gradual decline in memory and thinking.

Atherosclerosis is a condition where fatty cholesterol deposits build up inside medium and large blood vessels (see below). This reduces blood flow and can increase the risk of an ischaemic stroke.



SYMPTOMS

The symptoms of vascular dementia depend on which part(s) of the brain is damaged by the vascular disease.

People with vascular dementia can have similar symptoms to Alzheimer's disease and other types of dementia. More specific symptoms will depend on the underlying cause of the vascular dementia and the area of the brain affected .

Symptoms of post-stroke dementia might occur immediately or soon after a stroke. People are sometimes described as having an abrupt or stepwise decline. Vascular dementia symptoms caused by blood vessel diseases often develop in a more gradual way. So, symptoms will slowly get worse over time. The speed of change can vary over time and from person to person.

In the later stages of dementia, the condition affects most aspects of everyday life. So, over time people need more help and support with eating, dressing, washing, using the toilet and walking.

Some people experience memory and thinking problems that do not impact everyday life. This is called mild cognitive impairment (MCI). For more information about MCI, ask for our booklet using the contact details on the back page.

Vascular dementia symptoms may include:



Difficulty performing tasks that used to be easy, learning new information and following instructions.



Difficulty following conversations.



Struggling to find the right words or using wrong words.



Difficulty with paying attention, reading and writing.



Unsteadiness or changes in the way a person walks, or weakness on one side of the body which can be a symptom of post-stroke vascular dementia.



Slurring speech.



Changes in personality, behaviour and mood: People may become depressed, agitated or angry.



Loss of interest in things or people around them or become more emotional.



DIAGNOSIS

Diagnosing dementia is important. It's just as important to understand the specific type of dementia, as this can help someone get the right treatment and support. If you are worried about your dementia symptoms, or someone else's, you should talk to your doctor as soon as possible.

Some people may not want to see their GP or may not realise they are experiencing memory and thinking problems. This can make it difficult to encourage them to seek help.

It can be useful to keep a diary of any symptoms you notice or experience, to help monitor changes over time.



“ I'm pleased I had an earlier diagnosis. I can put things in place and make choices now rather than later on relying on my loved ones to make those choices for me. For example, when my dementia has progressed, I don't want my children to have to take me in and look after me – I want to go into a home. So, it's good that my family know my wishes. ”

- Olive, who lives with vascular dementia

When you go to the GP with memory and thinking concerns, the GP may:



Ask about your symptoms and how they are affecting you.



Ask a relative or close friend if they have noticed any changes.



Check your medical history.



Run a blood test to rule out some other possible causes. These include conditions like vitamin deficiencies and thyroid disorders that can be treated if caught early.



Give you a physical check-up, checking your blood pressure and balance.



Ask you to do some memory and thinking tests.



Ask you for a urine sample.

You may need to request a longer GP appointment to allow enough time for these checks. If possible, it is helpful if you can bring someone who knows you well to the appointment.

GETTING A REFERRAL

If your doctor suspects dementia, you may be referred to a memory clinic or another specialist doctor.

A memory clinic or specialist doctor may:



Do another physical check-up and some more memory and thinking tests.



Send you for other tests like a brain scan to look for any changes in blood vessels or signs of a stroke/s.



Suggest some further blood tests, or in some cases a test of spinal fluid (called a 'lumbar puncture', 'spinal tap' or 'CSF test').

The results of all of these tests will help the doctor to find out what's causing the symptoms.

However, it can be difficult to know the exact cause of vascular dementia. Researchers are working hard to look for more accurate ways of diagnosing conditions that can lead to vascular dementia.

For more information on what to do if you're worried about dementia symptoms, you can ask us for our '**Getting a dementia diagnosis**' booklet using the details on the back page of this booklet.



TREATMENTS

Unfortunately, there are currently no treatments that can slow or reverse vascular dementia. However, a doctor may prescribe or monitor medicines used to treat underlying conditions that can damage blood vessels. These include diabetes, stroke, high blood pressure, high cholesterol and heart problems.

A doctor will also advise making healthy lifestyle changes to help limit the damage caused by these underlying conditions. Find out more on page 23.

People diagnosed with vascular dementia may also benefit from cognitive stimulation therapy. Activities like memory games and group discussions can help people stay mentally active and connected with others. Both of these are important for brain health. Speech therapy may also support people who have trouble communicating.

Some people with vascular dementia may become more anxious, agitated or aggressive. To help manage these symptoms, a health professional may look for causes or triggers of agitation or aggression. Removing or changing these triggers can help to reduce these symptoms.

Complementary therapies may help with anxiety, agitation or aggression. These should match the person's preferences and support their wellbeing. Examples include aromatherapy, music therapy and spending time outdoors.

For information about what's suitable and available near you, contact the support services listed on page 24. Anyone considering these activities should check with their GP beforehand.

For people with both vascular dementia and Alzheimer's (mixed dementia), there are some medications used to treat Alzheimer's that may help with memory and thinking. If you've been diagnosed with mixed dementia, you can discuss these treatment options with the doctor. These drugs are not licensed for treating vascular dementia alone.

If someone experiences severe and distressing symptoms that can't be controlled without medication, then antipsychotic drugs may be considered. These drugs help correct the imbalance of chemicals in the brain that cause symptoms like aggression.

However, there are severe side effects, and they are not suitable for everyone. Anyone taking antipsychotics should be carefully and regularly monitored by the doctor.

For more information, ask for our **'Treatments for dementia'** information. Contact details can be found on the back page.

Summary of treatments for vascular dementia:



Medicines to treat or prevent underlying conditions like stroke, high blood pressure, high cholesterol or diabetes.



Cognitive therapy or speech therapy.



Medications for mixed dementia, where someone has vascular dementia and Alzheimer's disease or dementia with Lewy bodies .



Complementary treatments to promote wellbeing, such as music therapy and aromatherapy.



Medication for anxiety, agitation, and aggression such as antidepressants or antipsychotics when necessary.

A DOCTOR MAY MONITOR AND TREAT UNDERLYING CONDITIONS

like high blood pressure, diabetes and high cholesterol.

RISK FACTORS

A risk factor is something that affects our chances of developing a condition like dementia. Most cases of dementia are caused by a mixture of risk factors including our:



Age



Genes



Health



Lifestyle



Environment

Factors that increase vascular dementia risk do so by increasing the likelihood of blood vessel diseases or damage.

Some of these we can't change, like our age or genes. But research suggests that almost half of dementia cases worldwide are linked to risk factors we may be able to influence. So, there are steps we can take to protect our brain health.

The biggest risk factor for vascular dementia is age, followed by high blood pressure.

The older we get, the more likely we are to develop vascular dementia. This is because our arteries get stiffer and narrower as we get older. Nine in every 10 people with vascular dementia are over 65 years old.

Long-term untreated high blood pressure can also damage our arteries. This damage makes us more likely to develop vascular dementia.

Having a stroke also increases your risk of developing vascular dementia. Risk factors that make a stroke more likely are the same as those listed for vascular dementia on the previous page.

IS VASCULAR DEMENTIA INHERITED?

For most people, vascular dementia is not directly inherited. But some risk factors for vascular dementia may run in families. These include high blood pressure, diabetes and high cholesterol, which can have a genetic link.

In some very rare cases people may inherit a faulty gene, which can directly cause vascular dementia. One example of this is a disorder that causes blood vessel walls to thicken, blocking blood flow to areas of the brain. This condition, called CADASIL, only affects around 1,000 people in the UK.

If you are concerned about rare inherited forms of vascular dementia, you can talk to your GP. You can also find out more by requesting our '**Genes and dementia**' booklet. Contact details can be found on the back page.

REDUCING YOUR RISK OF VASCULAR DEMENTIA

It's important to take control over risk factors that we can influence. A healthy lifestyle and managing health conditions like high blood pressure protects our brain health and reduces our risk of vascular dementia, stroke and other underlying conditions that can lead to them.

Maintaining a healthy lifestyle in your forties and fifties seems to be particularly important for helping to lower your risk of dementia. This includes staying physically, mentally and socially active. But it's never too early or too late to take steps to improve your brain health.

Some early research also suggests that adopting a healthy lifestyle may be able to manage symptoms and slow down the progression of early-stage vascular dementia. More research is needed to confirm this. But taking steps will help to reduce your risk of any further strokes or blood vessel damage.

For more information about reducing your risk of developing dementia, ask for our **'Reducing your risk of dementia'** booklet. Contact details can be found on the back page.

You can also explore brain healthy habits and discover more tips to look after your brain via our Think Brain Health Check-in [thinkbrainhealth.org.uk](https://www.thinkbrainhealth.org.uk)

For good brain and heart health, and to help lower your risk of vascular dementia:



Don't smoke.



Keep physically and socially active.



Maintain a healthy weight.



Eat a healthy balanced diet.



Only drink alcohol in line with government recommendations.



Keep high cholesterol and blood pressure under control.



If you have type two diabetes, ensure your condition is managed well.



Have your hearing and vision checked regularly.



Keep your brain active by doing things you enjoy and spending time with others.

SUPPORT

There is a range of support organisations that offer practical and emotional support for people with dementia and those helping to care for them.

Dementia Research Infoline

If you have questions about symptoms, diagnosis, or treatments for dementia you can contact the Alzheimer's Research UK Dementia Research Infoline on **0300 111 5111** or infoline@alzheimersresearchuk.org

Admiral Nurse Helpline

The Admiral Nurse Dementia Helpline is provided by Dementia UK. The Helpline is run by dementia nurses who can give practical and medical advice, support and care tips. Call **0800 888 6678** or email helpline@dementiauk.org

Stroke Association

The Stroke Association provides information and support for those who have experienced a stroke. Call **0303 3033 100** or visit their website stroke.org.uk

Alzheimer's Society

Society provides dementia care information, emotional support, and local support groups in England, Wales and Northern Ireland. Call **0300 150 3456** or email dementia.connect@alzheimers.org

Alzheimer Scotland

Alzheimer Scotland offers support services, information and advice to people in Scotland. Call **0808 808 3000** or email info@alzscot.org

For more details of other helpful dementia organisations, ask us for our booklet '**Support for people affected by dementia: organisations that can help**'.

When someone is diagnosed with dementia, it's normal to have lots of questions about what happens next. Our booklet '**Dementia: your questions answered**' may be able to help. Contact and order details can be found on the back of this booklet. You can also speak to your nurse, GP or doctors' surgery for advice and signposting to local services.



RESEARCH

Alzheimer's Research UK has funded more than £6 million specifically looking at vascular dementia research, and £130 million on research looking at all types of dementia together.

To date, we've funded more than 90 research projects into vascular dementia. This includes studies looking at how blood vessels in the brain can become damaged and how this damage leads to symptoms.

Our scientists are also working hard to develop new ways of preventing and diagnosing vascular dementia. You can read more about recent projects we've funded on vascular dementia on the research section of our website alzheimersresearchuk.org/research

With your support, we will fund many more studies into vascular dementia. We promise we will not stop until dementia can no longer destroy lives.

**We are Alzheimer's Research UK.
We exist for a cure.**

**STAY UP-TO-DATE WITH
THE LATEST DEMENTIA
RESEARCH**

Call **0300 111 5555** or scan the QR code.



HOW TO GET INVOLVED

Research is the only way we'll find new ways to prevent, diagnose and treat dementia and scientists need your help. Without people volunteering to take part in research, finding a cure would be impossible.

People with dementia, their carers, and people without dementia are all needed to take part.

Anyone over the age of 18 can register to Join Dementia Research, which is run by the NHS. This will match you to research studies you are suitable for. Then you get to choose which ones to take part in.

People have many different reasons for wanting to volunteer for dementia research, and it's their support that will drive forward our progress and change the lives of everyone affected by dementia.

Join them today.

Find out more and register to take part by calling the Dementia Research Infoline on **0300 111 5111** or visiting joindementiaresearch.nihr.ac.uk



Alzheimer's Research UK is the UK's leading dementia research charity.

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