

Vascular dementia

This help sheet describes vascular dementia, as well as its symptoms, causes, types, diagnosis and treatment.

- Vascular dementia is a form of dementia caused by brain damage resulting from restricted blood flow in the brain.
- It affects someone's thinking skills: such as reasoning, planning, judgement and attention.
- Changes in skills and abilities are significant enough to interfere with daily social or work functioning.
- Often vascular damage occurs alongside Alzheimer's disease or other brain disease.

Causes of vascular dementia

Vascular dementia can be caused by:

- a single large stroke
- multiple strokes
- untreated high blood pressure or diabetes leading to vascular disease in the small blood vessels deep within the brain.

The location and size of brain damage determines which brain functions are affected.

Types of vascular dementia

Strategic infarct dementia

One single large stroke can sometimes cause vascular dementia, depending on the size and location of the stroke.

Strategic infarct dementia is characterised by the sudden onset of changes in thinking skills or behaviour. Symptoms vary depending on the location of the stroke and what brain functions it affected.

Provided no further strokes occur, the person's symptoms may remain stable or even improve over time. However, if there is other vascular disease also affecting the brain or additional strokes occur, symptoms may worsen.

Multi-infarct dementia

Multi-infarct dementia is caused by multiple strokes. It is associated with disease of the brain's large blood vessels. Often the person does not notice symptoms when the strokes occur.

Over time, as more strokes occur, more damage is done to the brain, with reasoning and thinking skills affected to the point that a vascular dementia diagnosis is made.

Depending on the location of the brain damage, other symptoms can include depression and mood swings. After each new stroke, symptoms can worsen, then stabilise for a while.

Subcortical vascular dementia

Subcortical vascular dementia is associated with disease in the small blood vessels deep within the brain and damage to subcortical (or deep) areas of the brain. It can be caused by untreated high blood pressure or diabetes leading to vascular disease.

Symptoms often include:

- deterioration of reasoning and thinking skills
- mild memory problems
- walking and movement problems
- behavioural changes
- lack of bladder control.

Subcortical vascular dementia is usually progressive, with symptoms worsening over time as more vascular damage occurs.

Diagnosing vascular dementia

No single specific test can diagnose vascular dementia.

A diagnosis is based on the presence of dementia, with vascular disease being the most likely cause of the symptoms. If vascular dementia is suspected, medical tests will be carried out.

These may include:

- an assessment of changes in thinking and behaviour, and how they are affecting daily function
- a full medical history
- blood tests
- a neurological examination (testing reflexes, senses, coordination and strength)
- neuropsychological tests (assessing changes in thinking abilities)
- brain imaging (to detect abnormalities caused by strokes or blood vessel disease)
- carotid ultrasound (to check for damage in the carotid arteries).

Vascular dementia can be very difficult to distinguish from other forms of dementia, because the symptoms of each type overlap. Also, many people with dementia have both vascular disease and other brain conditions such as Alzheimer's disease, and therefore have a mixed dementia.

Who gets vascular dementia

Vascular dementia can happen to anyone, but the risk increases with age.

Health and lifestyle factors can also increase the risk of vascular dementia, including:

- high blood pressure
- high cholesterol
- diabetes
- obesity
- smoking

- physical inactivity and poor diet
- heart rhythm abnormalities
- heart disease
- blood vessel disease
- history of multiple strokes.

Treatment and management options

There is no single treatment for vascular dementia.

- If the dementia is stroke-related, treatment preventing additional strokes is important.
- A healthy diet, exercise and not smoking may reduce the risk of further strokes or vascular brain damage.
- Medications for treating Alzheimer's disease may be effective for some people to improve memory, thinking and behaviour.
- Occupational therapy can help someone adapt to changes in abilities and stay independent.

Controlling conditions that affect the underlying health of your heart and blood vessels can sometimes slow the rate at which vascular dementia worsens, and may also sometimes prevent further decline.

- Prescribed medications can control high blood pressure, high cholesterol, heart disease and diabetes.
- Aspirin or other drugs may be prescribed to prevent clots from forming in blood vessels.

Seeking support

Support is available for someone living with vascular dementia, and their family and carers. This support can make a positive difference to managing the condition and living well.

Adjusting to changes in abilities, while maintaining enjoyable activities, is important for wellbeing. Learning about the condition and strategies for living well with dementia can be beneficial for everyone.

Additional reading and resources

- **Dementia Australia library service**
Visit: dementia.org.au/library
- **Dementia Australia support**
Visit: dementia.org.au/support
- **Dementia Australia education**
Visit: dementia.org.au/education

Further information

Dementia Australia offers support, information, education and counselling.

National Dementia Helpline: 1800 100 500

For language assistance: 131 450

Visit our website: dementia.org.au