

What is dementia?

Factsheet 400LP
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The word 'dementia' describes a set of symptoms that may include memory loss and difficulties with thinking, problem-solving or language. These changes are often small to start with, but for someone with dementia they have become severe enough to affect daily life. A person with dementia may also experience changes in their mood or behaviour.

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What is dementia?

Dementia is caused when the brain is damaged by diseases, such as Alzheimer's disease or a series of strokes. Alzheimer's disease is the most common cause of dementia, but not the only one. The specific symptoms that someone with dementia experiences will depend on the parts of the brain that are damaged and the disease that is causing the dementia. This factsheet explains what dementia is, including the causes and symptoms, and how it is diagnosed and treated. It also looks at some of the different types of dementia.

Symptoms

Each person is unique and will experience dementia in their own way. The different types of dementia also tend to affect people differently, especially in the early stages. Other factors that will affect how well someone can live with dementia include how other people respond to them and the environment around them.

A person with dementia will have cognitive symptoms (to do with thinking or memory). They will often have problems with some of the following:

- day-to-day memory – for example, difficulty recalling events that happened recently
- concentrating, planning or organising – for example, difficulties making decisions, solving problems or carrying out a sequence of tasks (such as cooking a meal)
- language – for example, difficulties following a conversation or finding the right word for something
- visuospatial skills – for example, problems judging distances (such as on stairs) and seeing objects in three dimensions
- orientation – for example, losing track of the day or date, or becoming confused about where they are.

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A person with dementia will also often have changes in their mood. For example, they may become frustrated or irritable, apathetic or withdrawn, anxious, easily upset or unusually sad. With some types of dementia, the person may see things that are not really there (visual hallucinations) or strongly believe things that are not true (delusions).

Dementia is progressive, which means the symptoms gradually get worse over time. How quickly this happens varies greatly from person to person. As dementia progresses, the person may develop behaviours that seem unusual or out of character. These behaviours may include asking the same question over and over, pacing, restlessness or agitation. They can be distressing or challenging for the person and those close to them.

A person with dementia, especially in the later stages, may have physical symptoms such as muscle weakness or weight loss. Changes in sleep pattern and appetite are also common.

What causes dementia

There are many diseases that result in dementia. The most common types of dementia are outlined below:

- **Alzheimer's disease** – This is the most common cause of dementia. In Alzheimer's disease, an abnormal protein surrounds brain cells and another protein damages their internal structure. In time, chemical connections between brain cells are lost and cells begin to die. Problems with day-to-day memory are often the first thing to be noticed, but other symptoms may include difficulties finding the right words, solving problems, making decisions, or perceiving things in three dimensions.
- **Vascular dementia** – If the oxygen supply to the brain is reduced because of narrowing or blockage of blood vessels, some brain cells become damaged or die. This is what happens in vascular dementia. The symptoms can occur suddenly, following one large stroke. Or they can develop over time, because of a series of small strokes. Vascular dementia can also be caused by disease affecting the small blood vessels deep in the brain, known as subcortical vascular dementia.

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The symptoms of vascular dementia vary and may overlap with those of Alzheimer's disease. Many people have difficulties with problem-solving or planning, thinking quickly and concentrating. They may also have short periods when they get very confused.

- **Mixed dementia** – This is when someone has more than one type of dementia, and a mixture of the symptoms of those types. It is common for someone to have both Alzheimer's disease and vascular dementia together.
- **Dementia with Lewy bodies** – This type of dementia involves tiny abnormal structures (Lewy bodies) forming inside brain cells. They disrupt the chemistry of the brain and lead to the death of brain cells. Early symptoms can include alertness that varies over the course of the day, hallucinations, and difficulties judging distances. A person's day-to-day memory is usually affected less than in the early stages of Alzheimer's disease. Dementia with Lewy bodies is closely related to Parkinson's disease and often has some of the same symptoms, including difficulty with movement.
- **Frontotemporal dementia (including Pick's disease)** – In frontotemporal dementia, the front and side parts of the brain are damaged. Clumps of abnormal proteins form inside brain cells, causing them to die. At first, changes in personality and behaviour may be the most obvious signs. Depending on which areas of the brain are damaged, the person may have difficulties with fluent speech or forget the meaning of words.

The symptoms of these types of dementia are often different in the early stages but become more similar in the later stages. This is because more of the brain is damaged as the different diseases progress. In the later stages of dementia, the person will need more and more support to carry out everyday tasks. However, many people with dementia live well for years after their diagnosis. Information, advice and support are available for the person and their carer to help them live well with dementia.

For more information see factsheet 456, **Dementia and the brain**. You can also go to alzheimers.org.uk/braintour to see a video explaining how Alzheimer's disease affects the brain.

Rarer causes of dementia

There are many other diseases that can lead to dementia. These are rare – together they account for only about 5 per cent of all dementia. They tend to be more common among younger people with dementia (under the age of 65). These rarer causes include corticobasal degeneration, progressive supranuclear palsy, HIV infection, Niemann-Pick disease type C, and Creutzfeldt-Jakob disease (CJD).

Some people with Parkinson's disease or Huntington's disease develop dementia as the illness gets worse. People with Down's syndrome are also at a particular risk of developing Alzheimer's disease as they get older. For more information see factsheet 442, **Rarer causes of dementia**.

Mild cognitive impairment

Some people have problems with their memory or thinking but these are not bad enough to affect their everyday life. In this case, a doctor may diagnose them with mild cognitive impairment (MCI). This is not a type of dementia, but research shows that people with MCI have an increased risk of going on to develop dementia.

However, MCI can also be caused by other conditions such as anxiety, depression, physical illness and the side effects of medication. Because of this, some people with MCI do not go on to develop dementia, and a small number of people will even get better. For more information see factsheet 470, **What is mild cognitive impairment (MCI)?**

Who gets dementia?

There are currently around 850,000 people in the UK with dementia. It mainly affects people over the age of 65 (one in 14 people in this age group have dementia), and the likelihood of developing dementia increases significantly with age. However, dementia can affect younger people too. There are more than 42,000 people in the UK under 65 with dementia.

Scientists are investigating how dementia might run in the family. In a very small number of people, certain types of dementia are inherited as a single gene that directly causes the disease. People with one of these genes will usually get dementia before the age of 65. Everyone else will inherit a

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combination of genes that increases or decreases their risk of developing dementia in much less direct ways.

For more information see factsheets 405, **Genetics of dementia**, and 450, **Risk factors for dementia**. For more information about dementia in people under 65 see factsheet 440, **What is young-onset dementia?**

How can I tell if I have dementia?

Becoming a bit more forgetful does not necessarily mean that you have dementia. Many people notice that their thinking gets a bit slower or their memory becomes a bit less reliable as they get older – for example, they might occasionally forget a friend's name. These symptoms can also be a sign of stress, depression or certain physical illnesses.

However, anyone who is worried that their memory is getting noticeably worse, or who has other symptoms such as those listed above, should discuss their concerns with the GP.

Diagnosing dementia

It is very important for anyone who has problems with their memory or thinking to get a proper assessment. These problems may be caused by a treatable condition such as depression or an infection, rather than dementia. Finding out the cause may allow the person to get the right treatment.

If these problems are because of dementia, getting a diagnosis has many benefits. It provides someone with an explanation for their symptoms, gives them access to treatment, advice and support, and allows them to prepare for the future and plan ahead. Knowing the type of dementia (for example, Alzheimer's disease or vascular dementia) is also important, partly because it may allow the person to get an appropriate drug treatment.

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Dementia will usually be diagnosed by a specialist doctor such as:

- a psychiatrist – a mental health specialist
- a geriatrician – a doctor specialising in the physical health of older people
- a neurologist – someone who concentrates on diseases of the nervous system.

Occasionally a GP or specialist nurse will make the diagnosis, depending on their expertise and training. There is no single test for dementia. A diagnosis is based on a combination of things:

- taking a 'history' – the doctor talking to the person and someone who knows them well about how their problems developed and how they are now affecting their daily life
- physical examination and tests (for example, blood tests) to exclude other possible causes of the person's symptoms
- tests of mental abilities (for example, memory, thinking) – simpler tests will be carried out by a nurse or doctor, more specialist tests by a psychologist
- a scan of the brain, if this is needed to make the diagnosis.

A common pattern is for the GP to make an initial assessment and then refer the person to a memory clinic or other specialist service for a more detailed assessment. A specialist doctor will have more expertise in dementia and will be able to arrange more detailed tests and brain scans, if needed. The diagnosis should be communicated clearly to the person and usually those closest to them as well. There should also be a discussion about the next steps.

For more information see factsheet 426, **Assessment and diagnosis**.

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How is dementia treated?

The vast majority of causes of dementia cannot be cured, although research is continuing into developing drugs, vaccines and other medical treatments. There is a lot that can be done to enable someone with dementia to live well with the condition. Care and support should be 'person-centred'. This means it should be focused on that person and their individual needs and preferences.

Non-drug treatments and support

There are a range of non-drug treatments available that can help someone to live well with dementia. These include information, advice, support, therapies and activities. The GP, memory service or local Alzheimer's Society are good places to start for more information on what is available.

Support for the person and their carer should be available after a diagnosis. This should give them the chance to talk things over with a professional, ask questions about the diagnosis, and think about the future. It's also important to get information on planning ahead, where to get help with this and how to stay well, both physically and mentally. Other types of treatment include the following:

- Talking therapies, such as counselling, can help someone come to terms with their diagnosis or discuss their feelings.
- Cognitive behavioural therapy (CBT) may be offered if the person develops depression or anxiety.
- Cognitive stimulation therapy is a popular way to help keep someone's mind active. It involves doing themed activity sessions over several weeks.
- Cognitive rehabilitation can enable an individual to retain skills and cope better. There is also lots that can be done at home to help someone with dementia remain independent and live well with memory loss. Support ranges from devices such as pill boxes or calendar clocks to practical tips on how to develop routines or break tasks into simpler steps.

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- Many people with dementia enjoy life story work, in which the person is encouraged to share their life experiences and memories. As a person's dementia progresses, they may also enjoy reminiscence work. Such activities may help improve someone's mood, wellbeing and mental abilities.

Other popular activities include music, singing or art. It is vital that people with dementia stay as active as they can – physically, mentally and socially. Taking part in meaningful activities is enjoyable and leads to increased confidence and self-esteem.

Drug treatments

There are drugs that can help with the symptoms of dementia, or that in some cases may stop them progressing for a while.

A person with mild to moderate Alzheimer's disease or mixed dementia in which Alzheimer's is the main cause may be prescribed one of three different drugs: donepezil, rivastigmine or galantamine. These may give temporary help with memory, motivation, concentration and daily living. In the moderate or severe stages of Alzheimer's disease someone may be offered a different drug called memantine. This may help with attention and daily living, and possibly ease distressing or challenging behaviours.

Donepezil, rivastigmine and galantamine can also be helpful for someone with dementia with Lewy bodies who has distressing hallucinations or delusions, or who has behaviours that challenge (for example, agitation or aggression).

For a person with vascular dementia, drugs will be offered to treat the underlying medical conditions that cause dementia. These conditions often include high blood pressure, high cholesterol, diabetes or heart problems. Controlling these may help slow the progression of dementia.

A wide range of other drugs may be prescribed at different times for a person with dementia. These include drugs for depression or anxiety, sleeping tablets or antipsychotics. Note that some of these drugs can have severe side effects. Not all are recommended for all types of dementia. Health professionals will generally recommend that a non-drug

approach is tried first before prescribing medication, unless a person's symptoms are very severe. For more information see factsheets 407, **Drug treatments for Alzheimer's disease**, and 408, **Drugs for behavioural and psychological symptoms in dementia**.

Can dementia be prevented?

It is not usually possible to say for sure why a particular person has developed dementia. Factors such as high blood pressure, lack of physical exercise and smoking – all of which lead to narrowing of the arteries – increase the risk of developing Alzheimer's disease and vascular dementia. There is evidence that a healthy lifestyle, especially in mid-life, can help reduce the risk of dementia. Regular physical exercise (for example, cycling, swimming, brisk walking), maintaining a healthy weight, not smoking, and drinking alcohol only in moderation, if at all, are linked to a reduced risk of dementia.

A healthy balanced diet also helps to reduce a person's risk. A balanced diet is one which is low in saturated fat, does not have too much salt, sugar or red meat, and includes plenty of fish, starchy foods, and fruit and vegetables. All these healthy lifestyle choices will also reduce the risk of other serious conditions such as stroke, heart disease and cancer.

A person who is already living with conditions such as diabetes, heart problems, high blood pressure or high cholesterol should follow professional advice to keep their condition under control. Getting depression treated early is also important.

It also seems that keeping mentally and socially active into later life may help lower a person's risk of dementia. Being mentally active could include doing puzzles or reading, or learning a new skill. Being socially active could include visiting friends or going to a place of worship. Volunteering could offer both mental and social activity and many organisations offer opportunities for people looking to donate their time or skills.

Further reading

Alzheimer's Society produces factsheets on a wide range of topics. Some of the following might be useful for you:

- What is Alzheimer's disease? (401)
- What is vascular dementia? (402)
- What is dementia with Lewy bodies (DLB)? (403)
- What is frontotemporal dementia (FTD)? (404)
- What is mild cognitive impairment (MCI)? (470)
- Rarer causes of dementia (442)
- Assessment and diagnosis (426)
- The progression of Alzheimer's disease and other dementias (458)
- Risk factors for dementia (450)
- Genetics of dementia (405)
- Coping with memory loss (526)
- Talking therapies (including counselling, psychotherapy and CBT) (445)
- Drug treatments for Alzheimer's disease (407)

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This factsheet has also been reviewed by people affected by dementia.

To give feedback on this publication, or for a list of sources, email publications@alzheimers.org.uk

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