ALZHEIMER'S RESEARCH UK FOR A CURE

WHAT IS ALZHEIMER'S DISEASE?

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INTRODUCTION

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

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

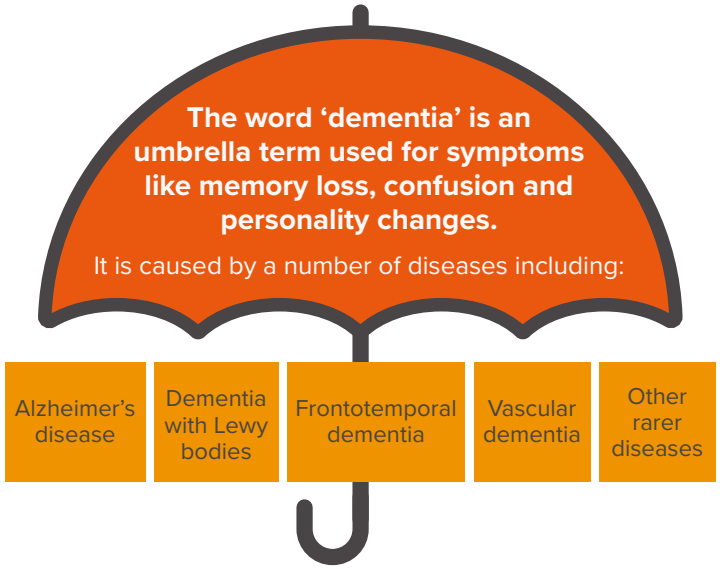
This booklet was updated in April 2026 and is due to be reviewed in April 2028. It was written by Alzheimer's Research UK's Information Services team with input from lay and expert reviewers. Please get in touch using the contact details below if you'd like a version with references or in a different 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.

WHAT IS DEMENTIA?

Dementia is caused by diseases that affect the brain. Alzheimer's disease is the most common disease that causes dementia. In the UK, Alzheimer's causes six in every 10 cases of dementia.



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

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

WHAT IS ALZHEIMER'S DISEASE?

As we get older, it's common for some aspects of thinking to slow down a little. Alzheimer's disease is different. It involves changes in the brain that are much more serious than those seen in normal ageing.

Although Alzheimer's is not a normal part of ageing, older people are more likely to develop it. Most people who have Alzheimer's are over the age of 65. This is called 'late onset' Alzheimer's.

But younger people can also develop Alzheimer's. At least three in every 100 people with Alzheimer's in the UK are under 65. This is called 'young onset' Alzheimer's disease. While the symptoms of young onset Alzheimer's disease are similar to those of late onset Alzheimer's, more unusual symptoms can develop too. Younger people can often struggle to get a diagnosis and the process can take longer than it does for someone over the age of 65.

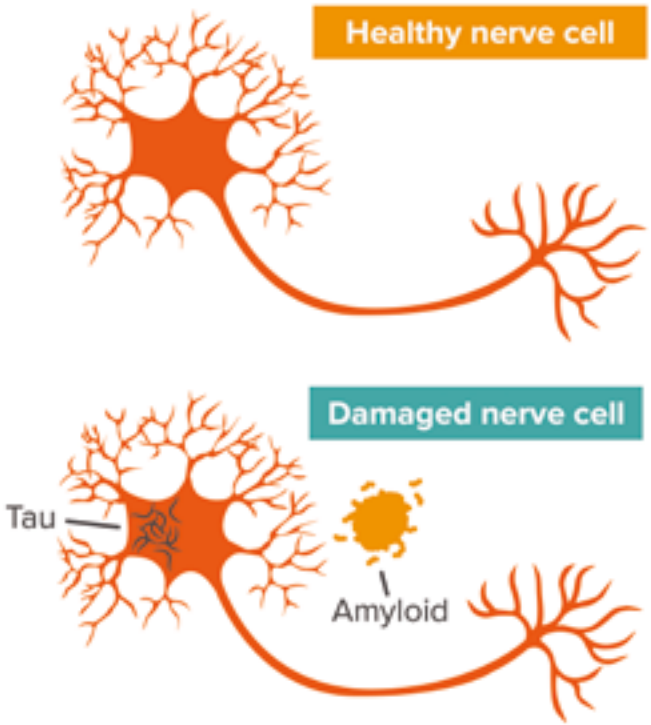
The impact of young onset dementia can be different – people are often working, have financial commitments like a mortgage, and may have children living at home and other care commitments.

If you would like more information about young onset Alzheimer's, please request our booklet using the details on the back of this booklet.

What happens in the brain in Alzheimer's disease?

Alzheimer's disease is linked to the build-up of two proteins in the brain, called amyloid and tau. Everyone has amyloid and tau in their brains. But in Alzheimer's, harmful forms of the proteins become sticky and clump together. Amyloid builds up between brain cells. Tau builds up inside brain cells.

Researchers are still trying to find out exactly what triggers these proteins to build up in the first place. But we do know that these proteins are linked to more and more damage to brain cells over time. This damage affects how our brain works and leads to dementia symptoms.



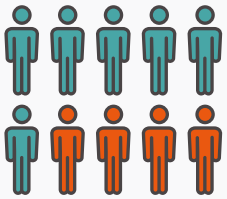
SYMPTOMS

Early symptoms of Alzheimer's are not always obvious. This is because Alzheimer's often develops slowly over several years.

It can be hard to tell the difference between early Alzheimer's and mild forgetfulness that happens as we get older. If symptoms start to affect daily life, or get worse, it's important to talk to a GP as soon as possible.

Each person's experience of dementia is different. Alzheimer's is a progressive disease. So, symptoms will get worse over time. How quickly this happens varies between people.

But everyone with Alzheimer's will need more support doing everyday tasks and an increasing amount of care as time goes on.



IN THE UK, SIX IN EVERY 10 CASES OF DEMENTIA are caused by Alzheimer's.

Early symptoms of Alzheimer's may include:

Regularly forgetting recent events, names, faces and recently learned information.

Regularly misplacing items or putting them in odd places.

Becoming more and more repetitive, e.g. repeating the same question or repeating behaviours and routines.

Getting confused about the date or time of day.

Getting lost or becoming unsure where they are, particularly in familiar places.

Problems finding the right words, understanding the meaning of words or following conversations.

Some people become low in mood, anxious or agitated. Others may lose self-confidence, show less interest in what's happening around them and in doing activities they would usually enjoy.

As Alzheimer's progresses, symptoms may include:

Finding that memory, thinking, or decision-making problems make daily life harder.

Having difficulty recognising familiar faces or everyday objects.

Struggling more with speaking and understanding others.

Developing problems with reading, writing, or using numbers.

Finding familiar tasks, such as using the phone or making a hot drink, become harder.

Changes in sleep, such as waking often at night or sleeping more during the day.

Having more difficulty walking, becoming unsteady on their feet, or finding swallowing harder.

Becoming more restless, anxious, or aggressive. Some people may also feel suspicious or fearful of others.

Seeing or hearing things that aren't there (hallucinations).

Gradually needing more help with daily activities like dressing, eating and using the toilet.

"My dad started to get very disoriented. He'd get lost on walks. Getting a dementia diagnosis was important so we knew what was happening and how to support him."

- Beth, whose Dad was diagnosed with Alzheimer's disease

DIAGNOSIS

Diagnosing dementia as early as possible is important. It can help someone get the right treatments and support, and plan for the future. And it's just as important to understand the specific type of dementia that someone has.

If you are worried about your memory and thinking, 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 harder 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. This can help to guide discussions with a GP.

"As my mum's symptoms got worse, we noticed more repetition and more memory loss. Her world started shrinking as she started to disengage with some of the hobbies she used to enjoy."

- Chris, whose mum was diagnosed with Alzheimer's

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

Ask you 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 other possible causes. These include vitamin deficiencies and thyroid problems. Some other causes of memory and thinking problems 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 can request a longer GP appointment to allow enough time for these checks. It may be helpful to bring someone who knows you well to the appointment.

GETTING A REFERRAL

If your doctor suspects Alzheimer's or another disease that causes dementia, they may refer you to a memory clinic or another specialist clinic.

A memory clinic or specialist doctor may:

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

Ask you more questions about your concerns, symptoms and how they affect you.

Send you for other tests like a brain scan.

Suggest some further blood tests. In some cases, you might be offered a test of spinal fluid (called a 'lumbar puncture', 'spinal tap' or 'CSF test'). This fluid is tested for abnormal levels of the proteins amyloid and tau, found in people with Alzheimer's disease.

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

Currently, there is no way to diagnose any type of dementia with complete accuracy. Researchers are working hard to look for better ways of diagnosing dementia.

If you are assessed for dementia, you can choose not to be told the results. You can also choose someone else to be told about your diagnosis instead.

Your doctor may also talk to you about how to take part in dementia research studies. People who take part in research make it possible to improve diagnosis and treatment for dementia. Find out more on page 34.

For more information on what to do if you are experiencing symptoms, and how to get a diagnosis of dementia, please request our booklet **'Getting a dementia diagnosis'** using the contact details on the back of this booklet.

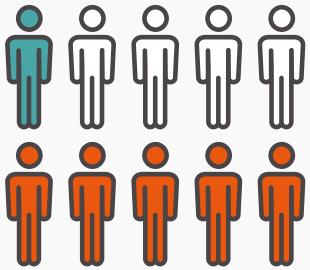
MILD COGNITIVE IMPAIRMENT

Some people develop mild memory problems that are worse than expected for their age, but do not get in the way of normal daily life. They may be diagnosed with mild cognitive impairment (MCI).

A doctor may also want to wait to look for any further changes over time. They may ask you to come back in six months or a year to repeat the assessments.

People with mild cognitive impairment are more likely to develop dementia. But it doesn't guarantee that they will. Some people even get better and their memory and thinking returns to normal, depending on what's causing their symptoms.

For more information about mild cognitive impairment, ask for our booklet using the contact details on the back of this booklet.



EVERY YEAR, FOR EVERY TEN PEOPLE DIAGNOSED WITH MCI...

One will go on to develop dementia.

Five may see their symptoms get better, depending on the cause.

TREATMENTS

Treatments currently available on the NHS for Alzheimer's can help someone to manage their symptoms for a time. But they do not stop the underlying disease from getting worse. It's important to discuss your treatment options with the people involved in your care.

DRUG TREATMENTS

Doctors often refer to people as having mild, moderate or severe Alzheimer's disease. This reflects how much symptoms affect the person's day to day life. Different drug treatments are recommended at different stages of the disease.

After your diagnosis, your GP or a specialist will usually start any medicine to help with Alzheimer's symptoms. Your GP will then review your treatment regularly to see how it's working for you.

Donepezil, rivastigmine and galantamine

People with mild to moderate Alzheimer's disease could benefit from taking a drug called a cholinesterase inhibitor. There are three cholinesterase inhibitors to treat mild to moderate Alzheimer's:

- donepezil (Aricept)
- rivastigmine (Exelon)
- and galantamine (Reminyl).

People with Alzheimer's disease often have less of a chemical messenger called acetylcholine in their brain. Acetylcholine helps nerve cells communicate with each other. When there is less of it, thinking and memory become harder.

Cholinesterase inhibitor medicines increase the amount of acetylcholine in the brain. This can help messages travel more easily between nerve cells, which can improve memory, thinking, or day-to-day functioning.

These medicines do not stop Alzheimer's from getting worse, but they may help some people manage their symptoms better than they would without treatment. Many people find they can continue daily activities more easily for a time while taking them.

Some people with Alzheimer's find their symptoms improve by taking a cholinesterase inhibitor. Others may not notice an effect. Doctors will continue to prescribe one of these drugs as symptoms get worse, so long as it is safe and suitable to do so.

Some people taking these drugs may experience side-effects. The most common are:

- feeling or being sick
- being unable to sleep
- stomach upset and diarrhoea
- muscle cramps
- tiredness.

These effects are often mild and usually don't last long. Most people do not get these side effects.

These medicines come in different forms, like tablets, liquids or patches. This means there are choices if swallowing is difficult or if another form is easier for you. A doctor, nurse or pharmacist can help you find the one that suits you best.

	PILL	DISSOLVABLE TABLET (melt in the mouth or dissolvable in water)	LIQUID	PATCH
Donepezil	✓	✓	✓	
Rivastigmine	✓		✓	✓
Galantamine	✓		✓	

Memantine

Memantine, also known as Ebixa or Axura, is recommended for people with moderate or severe Alzheimer's disease. It may be used for people with moderate Alzheimer's if cholinesterase inhibitors don't help or aren't suitable.

In people with Alzheimer's disease, there is often an imbalance of a chemical called glutamate in the brain. Memantine helps regulate glutamate in the brain. This helps brain cells to communicate with each other and to reduce the symptoms of Alzheimer's disease for a while.

People with moderate or severe Alzheimer's disease are sometimes prescribed a cholinesterase inhibitor and memantine together.

Like cholinesterase inhibitors, memantine is not a cure. It does not slow down the progression of the disease. However, it can help with some symptoms like memory, thinking and carrying out daily tasks. Some people taking memantine may not notice any effect at all. People may experience side-effects when taking memantine. The most common are:

- headaches
- dizziness
- drowsiness
- and constipation.

These are usually mild and last for between a few days and a couple of weeks as your body gets used to the medicine.

Not everyone will experience side effects. Talk to your doctor if you experience any side effects that you're worried about, or that last more than three weeks.

Memantine is also available in a few different forms. A doctor, nurse or pharmacist can help you find the one that suits you best.

	PILL	DISSOLVABLE TABLET (melt in the mouth or dissolvable in water)	LIQUID	PATCH
Memantine	✔	✔	✔	

Medicines for mood and behaviour changes

People with Alzheimer's disease may experience low mood and depression. Research has shown that antidepressants may only work for people whose depression was already being treated before they developed dementia. Other people may be offered talking therapies (page 23).

Some people with Alzheimer's can become more agitated or aggressive. This often happens once it becomes more difficult for someone to communicate.

In the most severe cases, antipsychotic drugs such as risperidone (Risperdal) may be offered to someone with dementia who is persistently agitated or aggressive, especially if they are at risk of hurting themselves or others. These drugs are not suitable for everyone and may have serious side-effects.

COMPLEMENTARY THERAPIES

Cognitive stimulation

Cognitive stimulation activities are designed to keep someone's mind active and improve mood and anxiety. They are usually done in groups and are meant to be fun. Examples include games, group discussions and practical activities like baking.

Cognitive stimulation can help people with Alzheimer's by improving memory, thinking skills and overall quality of life.

People with mild to moderate Alzheimer's should be offered the chance to take part in local cognitive stimulation programmes where available. You can discuss your options with your doctor or care provider.

Talking therapies

People with depression or anxiety in Alzheimer's may be offered social support or different types of talking therapies, depending on their needs and personal situation.

Talking therapies, such as cognitive behavioural therapy (CBT) and counselling, can help with symptoms. They provide a chance for people to talk about their worries with a specialist. This can help them to develop different ways of coping, thinking and behaving. Your doctor can tell you if this therapy is available to you.

Reducing agitation and aggression

For people with agitation and aggression in Alzheimer's, it is important to look for reasons why someone may be behaving this way. For example, they could be confused by a situation, be anxious or in pain, or be disturbed by noise or something else happening around them. Addressing these issues might reduce the person's agitation or aggression.

Complementary therapies, such as aromatherapy, dance or music therapy, may also be considered for those experiencing symptoms of agitation of aggression. This will depend on a person's preference as well as the availability of treatments.

TREATMENTS THAT CAN SLOW DOWN ALZHEIMER'S

In 2024, two medicines that can slow down symptoms of the very early stages of Alzheimer's were licensed in the UK. They are called lecanemab (Leqembi) and donanemab (Kisunla).

They are currently only offered by specialist private healthcare providers and as part of research trials running in certain centres in the UK. They are not available on the NHS.

Neither lecanemab nor donanemab are a cure. But they may allow some people with early Alzheimer's to live independently and with milder symptoms for longer.

To find the most up to date information about lecanemab, donanemab and other treatments for Alzheimer's disease visit **alzres.uk/treatment** or contact us using the details on the back page.

For more information on treatments for Alzheimer's, please ask for our booklet called **'Treatments for dementia'** using the contact details on the back page.

Summary of treatments for Alzheimer's disease:

Cholinesterase inhibitors and/or memantine to help reduce memory and thinking problems

Complementary therapies to reduce agitation and aggression – such as music therapy or aromatherapy

Medicines for anxiety and agitation, such as antipsychotics, only when necessary

Activities to stimulate thinking and improve wellbeing

Social support or talking therapy for depression and anxiety

Treatments that can slow down Alzheimer's. These are currently only available through specialist private healthcare services or research trials

WHAT CAUSES ALZHEIMER'S DISEASE?

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

Lifestyle

Health

Genes

Environment

Some of these things we cannot influence, like our age and our genes. Age is the biggest risk factor for developing Alzheimer's. The older you are, the more likely you are to develop it.

CAN I REDUCE MY RISK OF ALZHEIMER'S?

There is no surefire way to prevent dementia. This means that many people live a healthy and active life and still develop it.

Maintaining a healthy lifestyle in your forties and fifties seems to be particularly important for helping to reduce your dementia risk. But taking steps to look after our health is important at any age.

By keeping your brain and heart healthy, you will be lowering your risk of Alzheimer's or delaying its onset.

For more information about reducing your risk of developing dementia, ask for our booklet using the contact details on the back page or visit **alzres.uk/risk**

You can also explore your brain healthy habits and discover more tips to look after your brain at **thinkbrainhealth.org.uk**

For good brain health, and to help lower your risk of Alzheimer's disease:

Keep physically active.

Stay socially and mentally active.

Don't smoke.

Keep cholesterol and blood pressure under control.

Eat a healthy balanced diet.

Maintain a healthy weight.

Have your hearing and eyesight checked regularly.

Only drink alcohol within the recommended limits.

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

IS ALZHEIMER'S DISEASE INHERITED?

There are around 600,000 people living with Alzheimer's in the UK. So, many of us may have at least one relative with the disease. This doesn't mean that we will inherit it.

If someone has a parent or grandparent with Alzheimer's who developed the disease after the age of 65, then their own risk of developing Alzheimer's may be slightly higher than someone with no family history. This is because they are more likely to have risk genes.

People who inherit risk genes from one or both parents are more likely to develop Alzheimer's. But having these risk genes does not mean someone will definitely develop the disease. This is because there are still steps we can all take to look after our brain health. There is currently no genetic testing available on the NHS to find out if we carry risk genes.

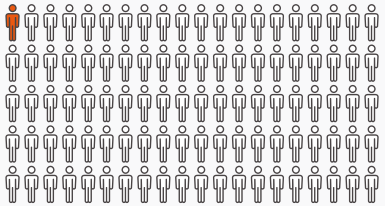
In rare cases, young onset Alzheimer's can run in families. Young onset dementia is where symptoms begin before the age of 65. When young onset Alzheimer's runs in families, the disease is caused by faulty genes.

People who inherit these genes are very likely to develop Alzheimer's during their lifetime. In these families, many people on the same side of the family are affected, often in their 30s, 40s or 50s.

There are genetic tests available on the NHS to investigate these cases of Alzheimer's disease. If you are worried these cases are present in your family, you should talk to your GP.

People with Down syndrome are more likely to develop Alzheimer's. They are also more likely to develop the disease at an earlier age. This is because the genetic differences in people with Down syndrome cause the faulty proteins amyloid and tau to build-up in the brain.

For more information about genes and dementia, ask for our booklet using the contact details on the back page. We also offer easy-read dementia information, co-designed with people living with Down syndrome and other learning disabilities.



AROUND ONE IN 100 CASES OF DEMENTIA

are caused by inherited faulty genes.

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 young onset dementia, symptoms, diagnosis, treatment, or about taking part in research, you can contact the Dementia Research Infoline on **0300 111 5111** or **infoline@alzheimersresearchuk.org**

Admiral Nurse Dementia 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**

Alzheimer's Society

Alzheimer's Society provides dementia care information, emotional support, and local support groups. Call **0300 150 3456** or email **dementiasupportline@alzheimers.org.uk**

Alzheimer Scotland

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

You can also speak to your nurse, GP or doctors' surgery for advice and signposting to local services.

For more details of other helpful dementia organisations, ask us for our booklet **'Support for people affected by dementia: organisations that can help'**. Contact and order details can be found on the back of this booklet.

RESEARCH

So far, Alzheimer's Research UK funded more than £270 million of pioneering research to help advance the diagnosis, treatment and prevention of dementia.

One project we've helped support is the Drug Discovery Alliance — a partnership between the Universities of Oxford, Cambridge, and University College London. They're working to understand more about Alzheimer's and aim to use this knowledge to develop new drugs to treat it.

We have also funded over 700 other research projects into Alzheimer's disease. You can read more about recent projects we've funded at **alzheimersresearchuk.org/research**

With your support, we will fund many more studies into Alzheimer's disease. 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**

Join dementia research

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

If you would like to view, download or order any of our other booklets please use the details below. If you'd like to help us review and improve our booklets, visit alzres.uk/reviewer

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VISIT

alzheimersresearchuk.org/dementia-information

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