

## Patient information from the BMJ Group

# Dementia

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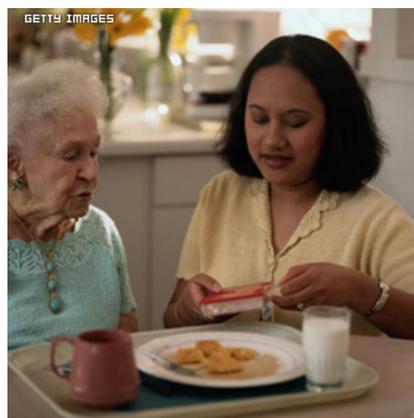
## Dementia

Coping with dementia can be difficult. People with this condition get confused easily and find it hard to remember things, but treatments can help. Alzheimer's disease is the most common type of dementia, but vascular dementia and Lewy body dementia are quite common too.

We've brought together the best research about dementia and weighed up the evidence about how to treat it. You can use our information to talk to your doctor and decide which treatments are best for you or someone you're caring for.

## What is dementia?

Dementia is a term that doctors use to describe what happens when someone's brain stops working properly. People with dementia become forgetful and confused. Many of us forget things as we grow older. But for people with dementia, this forgetfulness gets very bad. They might forget how to do everyday things, such as getting dressed.



It takes a lot of time and energy to look after someone with dementia.

People with dementia also get other signs that their brains are not working well, such as problems thinking or changes in their personality. As dementia gets worse, people can start to behave strangely or very differently. For example, they may get easily upset (agitated) or become aggressive.

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The most common type of dementia is **Alzheimer's disease**. The next most common types are **dementia with Lewy bodies** and **vascular dementia**. To read more, see [Types of dementia](#) .

There isn't a cure for Alzheimer's and most other dementias, but there are treatments that can help with memory problems and other symptoms.

If someone close to you has dementia, it can be distressing to watch them gradually get worse. It can also be exhausting to look after them yourself, no matter how much you want to. Make sure you get help, from other family members or from health care professionals.

## Key points about Alzheimer's disease and other types of dementia

- Alzheimer's and other types of dementia are often difficult for doctors to diagnose in the early stages.
- Forgetfulness and confusion are usually the first symptoms.
- There's no cure for Alzheimer's and most other dementias, but there are treatments that can help with the symptoms.
- If you think someone close to you may have Alzheimer's or another type of dementia, talk to his or her doctor. Many treatments work best early on in the disease.
- If you're caring for someone with dementia, bear in mind that you will need help.

## Your brain and what it does

To understand dementia and how it's treated, it helps to understand how your brain works.

Your brain controls most things that your body does. It allows you to speak, think, move your arms and legs, recognise your family, and build memories. Your brain also controls things like your breathing and body temperature.

Your brain is made up of billions of brain cells that share information with each other. Different groups of brain cells have different jobs to do. For example, some groups are involved in thinking, learning, remembering, and planning. Other groups of cells deal with seeing or hearing. And other cells manage the millions of jobs that keep your body working normally.

Your brain cells need to communicate with each other. Messages travel between cells in the form of electrical signals. The electrical signals move from one cell to another with the help of brain chemicals called **neurotransmitters** . Signals travel back and forth across the brain in a fraction of a second. Millions of signals are flashing through your brain right now.

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For your brain to work properly, the cells must be healthy and in good working order. They need to keep stores of neurotransmitters. And they also need an energy supply, which comes from chemicals in your blood. Brain cells can last a lifetime, and they normally repair themselves if they get damaged.

## How memory works

Our memories are stored in brain cells. One part of the brain helps us remember what we did a few minutes or a few days ago (short-term memory). Another part of the brain holds our long-term memory. Long-term memories last for months or years. Important, useful or dramatic memories get stored in your long-term memory. <sup>[1]</sup> <sup>[2]</sup>

As well as allowing us to remember what has happened to us, memory is important for everyday tasks. Almost everything we do relies on memory. Activities such as driving, or even catching a ball or turning on a tap, rely on memory. We've learned to do these things in the past, and we need our memory to do them again.

## What happens in dementia?

If you have dementia, this means your brain is not working properly. Different types of dementia have different effects on the brain, although the symptoms they cause may be similar. Symptoms include short-term and long-term memory loss, difficulties with language, and problems remembering how to do everyday activities.

Alzheimer's disease is the most common type of dementia. In Alzheimer's, small lumps of protein (called amyloid plaques) form in the brain. In the next most common type, Lewy body dementia, a different type of protein grows inside the brain cells. And in the third most common type, vascular dementia, the brain is damaged by blocked or ruptured blood vessels, in or near the brain.

To read more, see [Types of dementia](#) .

## Who is at risk of dementia?

We don't know why some people get dementia and others don't. But we know there are things that make it more likely that some people will get it. These things are called **risk factors**. For example, getting older is a risk factor. And if someone in your family has Alzheimer's, you're more likely to get it than someone without any relatives who have the disease.

### Risk factors for dementia

Having a risk factor does not mean that you will definitely get dementia. It means only that your risk is higher than someone who does not have that risk factor. Here, we list some of the main risk factors for dementia.

#### Age

The risk of getting dementia goes up with age, but age is not the only factor. There are millions of older people who don't have dementia.

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About 1 in 20 people between ages 65 and 70 have some form of dementia. This figure rises to about 1 in 5 people who are 80 and over. <sup>[3]</sup>

## Sex

Some types of dementia are more common in women, while others are more common in men.

Alzheimer's, the most common type of dementia, is more common in women. <sup>[4]</sup> The second most common type, dementia with Lewy bodies, affects equal numbers of men and women. But the next most common type, vascular dementia, is more common in men. This is probably because more men than women have high blood pressure, which increases the risk of having a stroke (a cause of vascular dementia).

For women who have gone through the menopause, doctors used to think that taking hormone replacement therapy (HRT) would lower their risk of getting Alzheimer's disease and other types of dementia. <sup>[4]</sup> <sup>[5]</sup> But studies haven't shown this to be true. Also, there are risks linked with taking HRT. To learn more, see [Hormone replacement therapy \(HRT\)](#).

## Family history and genes

Of all the types of dementia, we know the most about the role of family history and genes in Alzheimer's disease.

If you have a close relative who has **early-onset Alzheimer's disease**, you have a greater chance of getting this condition. This is a rare type of Alzheimer's that starts before the age of 60. <sup>[6]</sup> About 1 in 10 people who have Alzheimer's have this type.

In general, the genes people inherit from their parents can make them more likely to get Alzheimer's disease. But the genes don't directly cause the disease. Genes tell the cells of your body how to grow and work. If you have a faulty gene, it means that cells affected by that gene won't work properly.

If you have certain genes from a group called **ApoE**, you're more likely to get Alzheimer's disease. But having these genes doesn't mean that you'll definitely get Alzheimer's.

There aren't any good genetic tests that can predict whether you will get Alzheimer's. Most specialists in the UK advise against genetic testing unless someone in your family had early-onset Alzheimer's. <sup>[7]</sup>

## Down's syndrome

Almost all people with Down's syndrome develop brain changes similar to Alzheimer's disease by the time they reach middle age. <sup>[8]</sup> However, these brain changes don't lead to symptoms for everyone. One study found that around half of people with Down's had symptoms of Alzheimer's by the time they reached their 60s. <sup>[9]</sup>

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## Toxins

Scientists have noticed that some people with Alzheimer's disease have aluminium or zinc in their brains when they die. But we don't know whether having these substances in your body increases your chances of getting the disease.<sup>[10]</sup> There hasn't been enough research.

## Head injury

If you've had an injury to your head, you may be at risk of getting Alzheimer's disease earlier than most people.<sup>[10]</sup> This doesn't mean that head injuries cause Alzheimer's. But the injury may speed up the changes in the brain.

## Risk factors for strokes

Having a stroke or lots of little strokes can damage brain cells and lead to vascular dementia. Risk factors for stroke include:<sup>[11]</sup>

- High blood pressure
- High cholesterol
- Diabetes
- Smoking
- Being obese
- Not taking much exercise
- Having an irregular heart beat (such as atrial fibrillation).

## Early-onset dementia

Most people who have Alzheimer's get the first symptoms when they are older. But about 1 in 10 people with Alzheimer's have **early-onset Alzheimer's disease**. This form of the illness affects people in their 50s, 40s, or even 30s. It often runs in families.<sup>[12] [13]</sup>

The same is true for Lewy body dementia. Although it usually starts in older people, it can also affect younger people.

## Stages of Alzheimer's disease

Alzheimer's disease has three stages: mild, moderate, and severe. Doctors can work out what stage someone is at by looking at their symptoms. Sometimes doctors call these stages early, middle, and late.

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It's often difficult to know which stage someone with Alzheimer's disease fits into. Many of the symptoms can happen in any of the stages. And people pass through the three stages in different ways and at different speeds. But the symptoms of Alzheimer's will always get steadily worse.<sup>[4]</sup>

## Mild Alzheimer's

Someone with mild (early-stage) Alzheimer's disease may:<sup>[4] [14] [15]</sup>

- Not remember what they said or did recently, or what they just read
- Repeat themselves a lot
- Have trouble with certain activities, like adding up money or driving a car
- Find it hard to follow instructions
- Get lost when out walking, even though they're in a familiar place
- Get confused in new places.

At first, these problems may just be a nuisance. You may put them down to ageing. Slowly, they begin to interfere with daily life.

## Moderate Alzheimer's

Someone with moderate (middle-stage) Alzheimer's disease may:<sup>[4] [14] [15]</sup>

- Have more severe problems remembering recent events, people, or things
- Forget how to tell the time
- Become easily lost or confused
- Have trouble remembering words for things
- Not be able to understand what's being said
- Have trouble doing simple tasks that require coordination, such as eating, getting dressed, or solving simple puzzles.

## Severe Alzheimer's

Someone with severe (late-stage) Alzheimer's disease may:<sup>[4] [14] [15]</sup>

- Wander away from home, especially at night

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- Have hallucinations (for example, seeing or hearing things that are not there) or delusions (believing something that cannot be true)
- Lose their inhibitions. For example, a person may start to talk about sex or act in a sexual way towards people. Or they may become angry, aggressive, and argue a lot
- Lose interest in what's going on around them
- Not want to join in on social occasions
- Have trouble sleeping
- Get rigid muscles, so that they move awkwardly and shuffle when they walk
- Not feel like talking much.

### Types of dementia

There are more than 60 disorders that can cause dementia. Most of these conditions slowly get worse.<sup>[16]</sup> Here are some of the most common types of dementia.

### Alzheimer's disease

This is the most common type of dementia. More than half of the people with dementia have Alzheimer's.<sup>[17]</sup>

In Alzheimer's disease, several changes happen in the brain that stop it working properly.

- Small lumps form in the brain. Doctors call these **amyloid plaques**. They're made of protein and bits of dead cells. The lumps grow in the parts of the brain used for memory and thinking.<sup>[18]</sup> They may stop messages passing between brain cells.
- Bundles of twisted threads form inside brain cells. Doctors call these **neurofibrillary tangles**. These also stop brain cells talking to each other, and they can cause cells to die.<sup>[18]</sup> <sup>[12]</sup>
- Holes or gaps appear where brain cells have died.
- The brain does not have enough chemical messengers (neurotransmitters).

When Alzheimer's disease starts, it damages cells in the parts of the brain that store memories. This can cause problems with short-term memory. So, when someone gets Alzheimer's, they may forget what they did two days ago.

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Over time, the disease damages the parts of the brain that control language and thinking. People with Alzheimer's may forget words or have trouble understanding what others are saying.

Eventually, many areas of the brain get damaged and stop working properly.

## Dementia with Lewy bodies

This is the second most common type of dementia.<sup>[19]</sup>

In this type of dementia you get small, round clusters of proteins inside your brain cells. These are called **Lewy bodies**. They stop important chemicals in the brain working normally. But we don't know why these clusters appear.

Lewy bodies are also found in people with Parkinson's disease. People with this condition find it difficult to move. They get stiff muscles and shuffle when they walk. They also lose facial expressions as the muscles in their face become stiff. You can also get these symptoms if you have Lewy body dementia.

This type of dementia can also cause the small lumps in the brain that people with Alzheimer's get. Doctors call these **amyloid plaques**. They're made of protein and bits of dead cells. The lumps grow in the parts of the brain used for memory and thinking.<sup>[18]</sup> They may stop messages passing between brain cells.

People with Lewy body dementia get the usual memory and other brain problems, such as confusion, that come with other types of dementia. But they also might see things that aren't there (called hallucinations) and have problems keeping their balance.

## Vascular dementia

Dementia can also happen when blood vessels in or near the brain get damaged. If these vessels are blocked or burst, the brain doesn't get enough blood (this is what happens when you have a stroke). This can cause some of cells in the brain to die, and this can lead to dementia. Between 1 in 10 and 2 in 10 people with dementia have vascular dementia.<sup>[17]</sup>

Vascular dementia can happen suddenly if you have a stroke. Or it can come on gradually if you have a series of little strokes (this is called **multi-infarct dementia**). If you have a stroke, some symptoms can clear up with treatment. But they may gradually get worse.

## Other causes

Lots of other things can also lead to the personality changes and problems with memory, thinking and behaviour seen in dementia. These include:<sup>[16]</sup>

- Infections, such as HIV
- Alcohol abuse

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- A head injury
- A brain tumour
- Depression
- Other mental health problems, such as schizophrenia
- Other diseases that affect cells in your brain, such as Huntington's disease , motor neurone disease , or multiple sclerosis .

## What are the symptoms of dementia?

Alzheimer's disease and other dementias can cause many different symptoms. But the first sign is usually mild forgetfulness. Symptoms usually come on gradually and get worse over several years. But if you've had a stroke, they can start suddenly.

People in the early stages of Alzheimer's or other types of dementia can forget what day it is or what they did yesterday. They can have trouble remembering the names of friends or everyday objects. They can also get easily confused, so that they can't follow what you're saying.

These symptoms can be annoying for friends and family. You may even think your relative or loved one is being deliberately difficult. Bear in mind that someone with Alzheimer's or another type of dementia can do nothing about their state of mind, and may well be anxious about it themselves.

The problems with memory get worse over time. And they start to affect day-to-day life. For example, someone with Alzheimer's disease or another type of dementia may not be able to get dressed. They simply forget what they're supposed to do and how to do it. They can also find it hard to understand what people are saying to them. Some people with the disease have difficulty reading or writing.

Doctors divide the symptoms of dementia into three groups. There are different treatments for different groups of symptoms, so it's useful to know what these are.

- Problems with memory, thinking, and language, such as forgetting words for things or people, or not understanding what's being said. Memory problems can lead to confusion. For example, someone with dementia might get lost in a familiar place. Or they might forget they've done something, or keep asking the same questions again and again.
- Problems with doing day-to-day things, such as getting dressed, eating, and going to the toilet. People with dementia can find it difficult to follow instructions and they can have problems using money.
- Different behaviour. People with dementia can become **agitated, irritable, and restless**. They may start pacing the room or wandering. They may shout at their

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family or lash out. They might also feel anxious or depressed. Or they may laugh out loud or start crying at the wrong times. Some people get **delusions** (imagining that something is happening when it isn't). For example, they think somebody is trying to steal their things. Some get **hallucinations** (seeing or hearing things that aren't there).<sup>[20]</sup>

When someone first gets Alzheimer's disease or another type of dementia, they may realise that their memory isn't as good as it was. They might get annoyed with themselves for not remembering things. They may have moments when everything seems clear and other times when they're confused.<sup>[20]</sup>

But most people with dementia don't notice they're having problems. A relative or friend may need to tell them that they keep forgetting things and suggest they see a doctor.<sup>[14]</sup>

If you think someone close to you could have dementia, you should make sure they see a doctor. Many of the treatments for Alzheimer's and other dementias work best when the disease is in the early stage. So, it's important not to delay.

Although the above symptoms can happen with any type of dementia, different diseases have their own features.

### What happens in Alzheimer's disease

- Everyone who has Alzheimer's disease gets memory, thinking, and language problems and has difficulty doing day-to-day things.
- But not all people with Alzheimer's disease get the behaviour problems that can happen with dementia.<sup>[15]</sup>

There are three stages of Alzheimer's disease: mild, moderate and severe (doctors call these stages early, middle, and late). The stages are divided according to how bad the symptoms are. To read more, see [Stages of Alzheimer's disease](#) .

### What happens in Lewy body dementia

- One of the first symptoms can be getting hallucinations.
- Depression and delusions are common.
- Problems with memory and confusion can come and go from day to day, or even hour to hour.<sup>[21]</sup> So, one moment someone can't remember what day it is, and the next they can recall everything.
- Most people with this type of dementia also get symptoms of Parkinson's disease. They move more slowly and become rather stiff and rigid in the way they do things. People tend to shuffle along when they walk. Their hands and legs can also tremble.

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Because their muscles freeze, people can find it hard to make some facial expressions and they may also talk differently.

- Some people have fainting spells or 'funny turns' when they seem to black out.
- Some people have restless nights and sleep easily during the day. Nightmares and confusion are common at night.

### What happens in vascular dementia

- If someone has dementia after a stroke, their symptoms usually start suddenly. The person may be confused and have memory problems as well as other difficulties. What problems they get depends on where in their brain the stroke happened. To learn more about strokes and the symptoms they can cause, see our pages on [Stroke, emergency care](#).
- These symptoms can gradually get better or they can clear up with treatment. For example, if symptoms are due to a stroke that happened because a blood vessel to the brain got blocked, treatment with drugs to clear the blockage and thin the blood may also get rid of the symptoms. Controlling **high blood pressure** can also help. We've looked at treatments for stroke in a separate section. See [What treatments work for a stroke?](#)
- If dementia starts after lots of little strokes (called **multi-infarct dementia**), symptoms start slowly and get gradually worse, often in a step-like way. This can take many years. People with multi-infarct dementia often do not have any of the classic physical symptoms of a stroke.
- Doctors will try to control heart problems and blood pressure, to prevent any further strokes.
- With multi-infarct dementia, it's common for people to lose control of their bladder or their bowels. This is called incontinence. A continence nurse should be able to advise you about the best way to cope with this problem.

### How do doctors diagnose dementia?

It can be difficult for doctors to tell if someone has dementia, especially in the early stages.

There's no test that can tell someone that they definitely have **Alzheimer's** or another type of dementia. But there are tests that can help doctors decide whether it's likely that someone has one of these conditions.

The early signs of dementia are easy to miss. And there's no way of knowing exactly when it starts, unless someone develops dementia due to a **stroke**. Scientists are trying to find ways of spotting dementia early on. It's helpful if people with dementia can plan for the future while they can still take part in decisions.

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## Seeing a GP

If you think that someone in your family might have Alzheimer's or another type of dementia, you should make sure they see their GP. You may find that they don't want to see a doctor about their symptoms. But you might be able to persuade them to go for a physical check-up or for help with a specific problem, such as not being able to get to sleep.

When doctors first see someone who gets confused or has problems with their memory, they need to rule out other things that can cause these symptoms.

Depression and other conditions can cause symptoms of dementia. It's important that other conditions are spotted and treated if possible. <sup>[14]</sup>

Some people may have two types of dementia at the same time. For example, someone may have Alzheimer's and vascular dementia. This can make it difficult to accurately diagnose what is causing their symptoms. <sup>[30]</sup>

When GPs first see someone who might have dementia, they usually: <sup>[31]</sup>

- Ask about the person's medical history
- Examine the person physically and take samples of their blood and urine to rule out other diseases
- Carry out some tests to see how well the person's memory, language skills, and reasoning abilities are working.

## Seeing a specialist

Doctors have guidelines about how to treat someone who may have Alzheimer's disease. These say that if a GP thinks someone may have Alzheimer's, he or she should refer the person to a doctor specialising in dementia for a diagnosis. <sup>[32]</sup> This might be a neurologist, a geriatrician, a psychiatrist, or a psychogeriatrician.

People with other types of dementia will usually be referred to see a specialist too. But there are no guidelines that say this should definitely happen. If your GP has not suggested a referral and you would like to see a specialist, you can ask for one. <sup>[31]</sup>

It is more important today than it was in the past to find out what type of dementia someone has. This is because there are now drugs that can treat certain dementias. Most of these drugs work best in the early stages of the condition. So, it's important to get a clear diagnosis early on. A specialist has more experience than a GP in diagnosing and treating people with dementia and also has access to more specialised tests.

A specialist can carry out an MRI scan or a CT scan to check if the person has had a stroke or has a tumour. As the symptoms change over time, it's important for people with dementia to have regular check-ups with a specialist. <sup>[30]</sup>

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Doctors often use a test called the **Mini-Mental State Examination** (or MMSE for short). It helps them decide how bad someone's dementia is. This test is also used in many research studies to see whether treatments for dementia are working. The MMSE is a series of questions that test someone's memory, understanding, and ability to carry out simple tasks. <sup>[33]</sup>

## How common is dementia?

If you or someone in your family has Alzheimer's or another type of dementia, you are not alone. More than 800,000 people in the UK have dementia. <sup>[22]</sup>

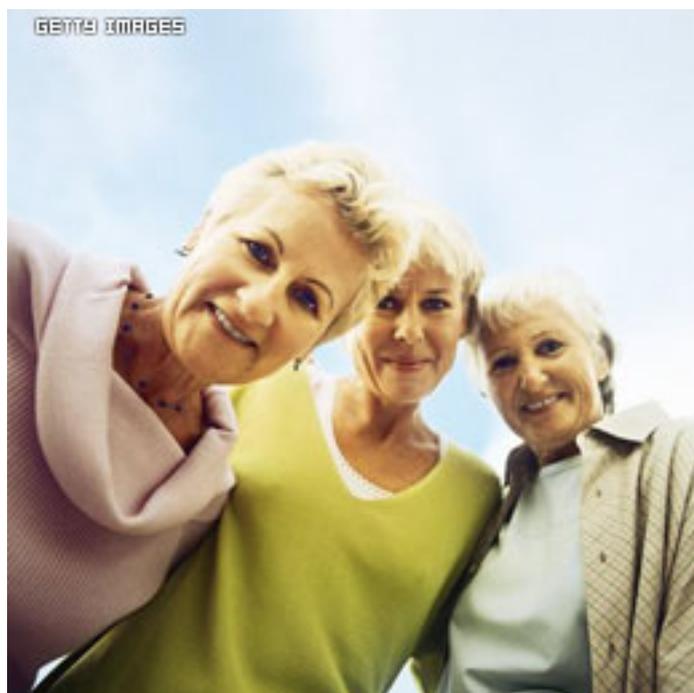
The chances of getting dementia increase as you get older. About 1 in 100 people in their late 60s have dementia. <sup>[23]</sup> This rises to 6 in 100 people in their late 70s, and 20 in 100 people in their late 80s.

For more than half the people with dementia, the cause is Alzheimer's disease. <sup>[17]</sup>

The number of people affected by dementia is increasing because more people are living longer. By 2021 the number of people in the UK with some form of dementia is predicted to rise to more than 1 million. <sup>[22]</sup>

## What treatments work for dementia?

There's no cure for Alzheimer's disease and many other kinds of dementia. But there are several treatments that can help with symptoms such as forgetfulness and confusion. There are also drugs that can help people in the later stages of dementia who become easily upset or aggressive, or who have hallucinations (they see things that aren't there).



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If you're looking after someone with dementia, make sure you get lots of support.

But drug treatments are only a part of the care that people with dementia and their families need.

If you're looking after someone with dementia, there will be times when you feel exhausted, angry, or depressed. You will need information about the disease, advice on how to cope, and practical support. Make sure you get help, whether from your family, from professionals, or from groups that help carers.

There are many local carers' groups that may be able to give you the support you need. You can contact the Alzheimer's Society ( <http://www.alzheimers.org.uk> ) and Alzheimer Scotland ( <http://www.alzscot.org> ) for advice about the kind of help you need.

## Key points for treating dementia

- The drugs donepezil, galantamine, rivastigmine, and memantine help some people with dementia become less forgetful and confused. But the effects are small.
- Rivastigmine seems to have more side effects than donepezil or galantamine.
- A drug called carbamazepine can help reduce symptoms like getting agitated, acting aggressively, wandering, and having hallucinations.
- Some older, smaller studies found that Ginkgo biloba, a Chinese herbal remedy, might help with forgetfulness and confusion. But more recent studies found no benefit. So, overall, there is no good reason to think Ginkgo biloba works.
- Most drugs only slow down how quickly dementia progresses. They cannot stop dementia eventually getting worse.

The National Institute for Health and Care Excellence (NICE), the body that decides which treatments should be available on the NHS, has published guidance for doctors on the care and treatment of people with dementia (you can read about the guidance here: <http://www.nice.org.uk/guidance/CG42/InformationForPublic> ).<sup>[34]</sup>

## Treatment Group 1

### How is Alzheimer's disease treated?

The National Institute for Health and Care Excellence (NICE), the government body that advises doctors about which treatments should be available on the NHS, has published guidance for doctors on certain drugs used to treat Alzheimer's disease .<sup>[35]</sup>

For people with mild to moderate Alzheimer's, NICE recommends the drugs [donepezil](#) , [galantamine](#) , and [rivastigmine](#) . It also provides the following guidance.

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- The drug treatment should be started by a specialist doctor, but may be continued by the patient's GP.
- People taking these drugs should be checked regularly, usually by a specialist, to make sure the drug is helping.
- Doctors should find out the carer's view of the patient's condition at the start of treatment and at check-ups.

The check-ups will probably include a test called the Mini-Mental State Examination (MMSE). Doctors should also look at how the patient behaves and how well he or she copes with daily life. In some cases, the Mini-Mental State Examination may not be helpful: for example, if the person has hearing difficulties or finds speaking difficult because of a stroke. Doctors are advised to use other methods to judge how severe the person's disease is in those cases. <sup>[35]</sup>

For people with severe Alzheimer's, NICE recommends the drug [memantine](#). Memantine can also be taken by people with moderate Alzheimer's if they are unable to take one of the other drugs.

### Which treatments work best?

We've carefully weighed up the research on treatments for dementia. You can find out more about each treatment by clicking on the links below.

For help in deciding which treatment is best for you, see [How to use research to support your treatment decisions](#).

### Treatments for dementia

#### Treatments that are likely to work

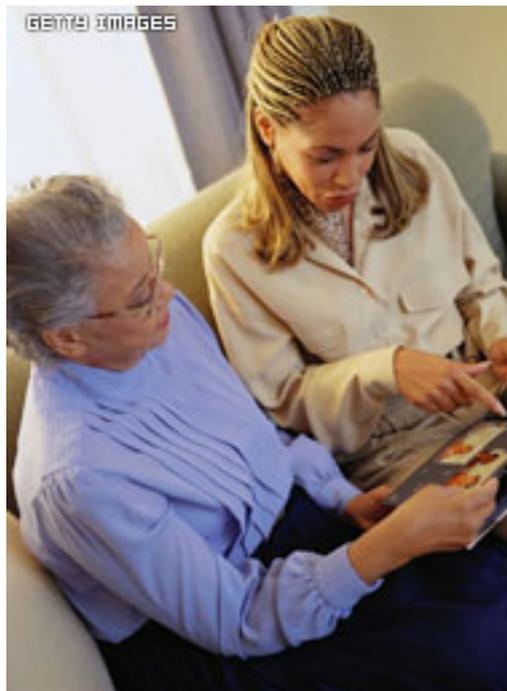
- [Donepezil](#) : This drug is for symptoms like forgetfulness and confusion. It may also help people with their daily activities. The drug's brand name is Aricept. [More...](#)
- [Galantamine](#) : This drug is for symptoms like forgetfulness and confusion. The brand name is Reminyl. [More...](#)
- [Memantine](#) : This is a drug for symptoms like forgetfulness and confusion. Its brand name is Ebixa. [More...](#)
- [Rivastigmine](#) : This is a drug for symptoms such as forgetfulness and confusion. Its brand name is Exelon. [More...](#)

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## Treatments that work, but whose harms may outweigh benefits

- [Haloperidol](#) : This drug is for aggression and agitation. The brand names are Dozic, Haldol, and Serenace. It's a type of drug called an antipsychotic. These drugs can have dangerous side effects when they're used to treat people with dementia. [More...](#)
- [Olanzapine](#) : This drug is sometimes used for symptoms such as agitation. But doctors have been advised that it shouldn't be used to treat older people with dementia. It increases the risk of a **stroke** . The brand name is Zyprexa. [More...](#)
- [Risperidone](#) : This drug is sometimes used for symptoms such as agitation. But doctors have been advised that it shouldn't be used to treat older people with dementia. It increases the risk of stroke. The brand name is Risperdal. [More...](#)

## Treatments that need further study



Reminiscence therapy may be a way of helping people keep their memory working.

- [Carbamazepine](#) : This drug is normally prescribed for epilepsy. It may help with symptoms such as agitation and aggression. Its brand names are Tegretol and Tegretol Retard. [More...](#)
- [Benzodiazepines](#) : These are drugs that are used to treat anxiety. They are also used to treat dementia. Doctors have only studied one benzodiazepine that has been used to treat dementia. Its name is lorazepam. [More...](#)
- [Exercise](#) : Some studies have looked at whether physical exercise programmes help people with dementia. [More...](#)

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- [Ginkgo biloba](#) : This is a herbal remedy often used in Chinese medicine. [More...](#)
- [Music therapy](#) : This technique uses music to help people feel calm. [More...](#)
- [Nonsteroidal anti-inflammatory drugs \(NSAIDs\)](#) : These are painkillers and they also reduce inflammation . [More...](#)
- [Quetiapine](#) : This drug might help people who get upset easily (agitated). The brand name is Seroquel. It's a type of drug called an antipsychotic. Antipsychotics can have dangerous side effects when they're used to treat people with dementia. [More...](#)
- [Reminiscence therapy](#) : This is a treatment that encourages people to use their memory. [More...](#)
- [Selegiline](#) : This drug is normally prescribed for Parkinson's disease. It has also been used to help people with Alzheimer's with their memory and thinking. Its brand names are Eldepryl and Zelapar. [More...](#)
- [Sodium valproate](#) : This drug is normally used to treat epilepsy. It is used for symptoms such as agitation. Its brand names are Epilim, Orlept, Convulex, and Depakote. [More...](#)
- [Trazodone](#) : This is a drug used to treat depression. Its brand name is Molipaxin. [More...](#)
- [Omega 3 fish oil](#) : Fish oils are a common food supplement that have been used in a few dementia trials. [More...](#)
- [Statins](#) : These drugs are usually used to help people lower their cholesterol levels. They've also been tried as a treatment for dementia. [More...](#)
- [Cognitive behaviour therapy](#) : This talking treatment aims to improve the psychological symptoms of dementia such as low mood and anger. [More...](#)
- [Antidepressants](#) : These are drugs usually used to treat depression. They may help people with dementia who also have symptoms of depression. [More...](#)
- [Cognitive stimulation](#) : This talking treatment might help some people with dementia think more clearly, or might help them with memory symptoms. [More...](#)

### Treatments that are unlikely to work

- [Hormone replacement therapy \(HRT\)](#) : Some research has shown that taking HRT seems to protect women from getting dementia. But it doesn't seem to help symptoms once someone has dementia. HRT can also cause serious side effects. [More...](#)

## Other treatments

We haven't looked at the evidence for these treatments in as much detail as other treatments on our site (for more information, see Our method ). But we wanted to include some information about them as many people are interested in them.

- [Person-centred care](#) : Person-centred care is when a nursing or residential home adapts care to suit the residents, rather than expecting everyone to fit into the routine of the home. [More...](#)

## What will happen?

Most types of dementia cannot be cured. The symptoms will get worse over time. The only exception is dementia that happens suddenly after a stroke. Sometimes doctors can reverse this, although it's not always possible.

Your doctor probably won't be able to tell you how quickly the condition will get worse or how soon the disease will affect day-to-day life.

Everyone's different. Some people get worse gradually over several years. Others get worse suddenly, over a few months. Some have long periods when they don't get any worse, followed by short periods when they do. <sup>[24]</sup> <sup>[4]</sup> But eventually most people with dementia will need help to do everyday things, like getting washed and dressed.

Getting the right treatment and support can make a difference. <sup>[25]</sup> For example, treatment with one of the drugs that helps with forgetfulness and confusion can mean that someone with **Alzheimer's** or another type of dementia may be able to stay at home longer before needing full-time care in a nursing home.

As the disease gets worse, people with dementia can become difficult to understand. <sup>[26]</sup> Many people also behave differently. They become restless and easily upset. They may try to wander from home. Some people become aggressive, shouting or lashing out. Many people feel depressed or lose interest in life.

Others have delusions (they imagine that something is happening when it isn't) or hallucinations (they see things that aren't there). There are drugs that can help some people who have these symptoms. <sup>[15]</sup>

This is what we know from the research:

- The worse symptoms are at the beginning of the disease, the sooner someone will need help looking after himself or herself
- People who have symptoms such as hallucinations or depression get worse more quickly than people who don't.
- People whose behaviour is hard to manage get worse more quickly. <sup>[27]</sup>

## Dementia

People with Alzheimer's or another type of dementia will have some days that are better than others. This is because the ability to do things can change from day to day, or even hour to hour.<sup>[25]</sup> If you're looking after somebody with dementia, this can be confusing. Sometimes, you may feel that the person is being deliberately difficult.

Someone with dementia might realise that their partner or carer notices 'problems' that they do not. This can leave them feeling uncertain about themselves and the world.<sup>[20]</sup> They can feel anxious and angry, and lash out at those around them, especially in the later stages of the disease when they feel they have no control over their life.

Some people with early dementia may wish to plan for the future. They may want to discuss options for treatment with their relatives. Some people write an **advance directive**. This lets others know what treatment and care they want in the future.<sup>[25]</sup> People with dementia can lose the ability to keep track of money. So, it's important to decide who should help with decisions about money and health care.

However, the news isn't all bad. A few years ago, doctors could offer treatments only for individual symptoms. So, if someone with dementia had **depression**, their doctor might have given them an **antidepressant**. But today, doctors have drugs that have been specially designed to balance the chemical changes that happen in the brain in dementia. Scientists are trying to improve on these drugs all the time as they find out more about how the brain works and what goes wrong in Alzheimer's and other dementias.

Some people live for 20 years after being diagnosed with Alzheimer's disease or another type of dementia, but others live only a few months. On average, people can expect to live for about five or six years after they find out they have Alzheimer's.<sup>[24]</sup> People who have **Lewy body dementia** live for an average of six years after they are diagnosed.<sup>[28]</sup> There is no good information about how long people with **vascular dementia** live after they are diagnosed.

Overall, people with any type of dementia live for about four to five years. Women with dementia tend to live longer than men, and not surprisingly, younger people with dementia live longer than older people with dementia.<sup>[29]</sup>

### Caring for someone with dementia

People with Alzheimer's or another type of dementia gradually lose the ability to look after themselves. And their personality changes. It can be heartbreaking to watch a person close to you change in this way. You might learn to cope with one situation, but then it changes. You then need to gather your strength to cope with a new set of symptoms.

There will probably be a time when you need to think about getting help. This could be extra help at home, or in a care home or a nursing home. Help at home can include help with washing, dressing, shopping, and cooking, as well as practical aids to make it easier for someone with dementia to live safely at home alone. Residential care homes offer help with personal care, such as washing, dressing, and getting to the toilet. Nursing

## Dementia

homes have a trained nurse on duty at all times, and offer more intensive nursing care, which may be needed if a person is very confused or is incontinent.

These can be difficult decisions to make and you may need a lot of help to decide what's best. It's probably wise to think about these things sooner rather than later, so that you'll have plenty of time to look around and make the right choice.

For advice, you can contact the Alzheimer's Society ( <http://www.alzheimers.org.uk> ) and Alzheimer Scotland ( <http://www.alzscot.org> ).

### Questions to ask the doctor

If someone in your family has been diagnosed with Alzheimer's disease or another type of dementia, you may want to ask their doctor some questions to find out more about the disease.

Here are some questions that you might want to ask.

- Why do you think my family member has dementia?
- What is causing their dementia? Is it Alzheimer's disease or another type of dementia?
- Could there be another reason for the symptoms?
- Do they need to see a specialist?
- Do they need to have any tests? If so, what kind of tests?
- Will the symptoms get worse?
- How will the symptoms change over time?
- What can I expect in the future?
- Will I be able to cope with caring for my family member at home?
- Is there any help I can get?
- Will my family member need to go into a nursing home?
- If so, when will I need to arrange this?
- Will there be regular, ongoing appointments?
- What treatments can you give? What can they do?

- Is anyone else in my family at risk of getting this type of dementia? If so, is there anything they should be doing?
- 

## Treatments:

### Donepezil

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[What is it?](#)

[How can it help?](#)

[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on donepezil?](#)

This information is for people who have dementia, or their carers. It tells you about donepezil (Aricept), a treatment used for dementia. It is based on the best and most up-to-date research.

### Does it work?

Yes. If someone with [mild or moderate Alzheimer's](#) takes donepezil, their memory may improve and they may be able to think more clearly. But people who are helped by donepezil get only a little better.

Donepezil may also help people with [vascular dementia](#) or [Lewy body dementia](#).

### What is it?

Donepezil is a tablet that you normally take at night. Its brand name is Aricept.

This medicine is for people with mild or moderate Alzheimer's disease.<sup>[36]</sup> To learn more, see [How is Alzheimer's disease treated?](#)

Guidance for doctors in the NHS says there may be some situations where other people with dementia can also be prescribed this drug.<sup>[37]</sup>

People with Alzheimer's disease and other dementias may have to take donepezil for up to four months before they get any benefit. If a person seems to be handling the drug well with no side effects after about a month, doctors may recommend a larger dose. The larger dose may work better.

### How can it help?

People with mild or moderate Alzheimer's disease do better in tests of memory and thinking when they take donepezil.<sup>[38]</sup> <sup>[39]</sup> But the improvement is usually small.

Donepezil may also help people with [moderate or severe Alzheimer's disease](#) to think more clearly, behave more normally, and do more daily activities, such as washing and dressing.<sup>[38]</sup> <sup>[39]</sup> <sup>[40]</sup> But not all research shows this.

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Donepezil may help memory and thinking in people with vascular dementia. But again, the improvement is only small. <sup>[41]</sup> <sup>[42]</sup>

Not much research has looked at taking donepezil for Lewy body dementia. But one study with 140 people found that people taking this medicine had improvements in their thinking ability and behaviour, compared with those who took a dummy ( placebo ) treatment. <sup>[43]</sup>

One summary of all the research into donepezil and similar drugs for dementia said that the improvements might be so small that they made little difference to the person taking the drug. <sup>[44]</sup>

## How does it work?

Donepezil is one of a group of drugs called cholinesterase inhibitors. Drugs in this group increase the amount of a chemical called acetylcholine in the brain. Acetylcholine is a chemical messenger ( neurotransmitter ) in the parts of the brain that control memory, thinking, and decision making. People with dementia have less acetylcholine than other people. This may explain why they get confused and become forgetful.

When brain cells need to communicate with other brain cells, messages are carried by acetylcholine and other neurotransmitters. When the message has been delivered, the acetylcholine is destroyed by enzymes . Donepezil stops these enzymes working. So, the acetylcholine isn't destroyed and keeps helping signals travel through the brain. This might improve memory and thinking.

## Can it be harmful?

The most common side effects of donepezil are: <sup>[38]</sup> <sup>[45]</sup>

- Feeling sick or vomiting
- Getting easily upset (agitated)
- Having muscle cramps
- Not being able to sleep
- Getting diarrhoea
- Getting headaches.

These side effects are usually mild and often go away. They do not seem as bad as the side effects of [rivastigmine](#) or [galamantine](#) , two other anticholinesterase treatments for dementia. <sup>[39]</sup> But they can be serious for some people. You're more likely to get side effects if you take a dose of 10 milligrams (mg) a day than if you take 5 mg a day.

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Some people stop taking donepezil because of the side effects. In one study: <sup>[38]</sup>

- About 1 in 4 people stopped taking the 10 mg dose
- About 1 in 5 people stopped taking the 5 mg dose.

But about 1 in 5 people also stopped taking a dummy pill (a placebo). This suggests that the side effects may have been caused by something other than donepezil.

## How good is the research on donepezil?

### Donepezil for Alzheimer's disease

We found quite a lot of research that showed donepezil can help people with mild or moderate Alzheimer's disease. <sup>[46] [38] [39] [47]</sup> In most studies, people took the drug for three months or six months. This isn't long enough to know how long donepezil works for. The studies showed that, in tests, people who took donepezil could think more clearly and seemed to do better than people who took a dummy treatment (a placebo). <sup>[48]</sup> But in some studies, when doctors asked people how they were, people said they didn't feel any better. <sup>[38]</sup>

One study found that Alzheimer's symptoms in people taking donepezil were delayed. <sup>[49]</sup> After a year, 6 in 10 people who took donepezil were still doing as well as they were at the start of the study. This compared with only 4 in 10 people who took a placebo.

Some, but not all, research suggests donepezil may also help people with [moderate or severe Alzheimer's disease](#) to think more clearly, and do more daily activities, such as washing and dressing. <sup>[38] [39] [40]</sup>

Donepezil might also help people with Alzheimer's disease or vascular dementia with symptoms such as aggression or agitation. But the benefit, if any, is likely to be very small. <sup>[38] [39]</sup>

Donepezil seems to work just as well as the drugs [rivastigmine](#) and [galantamine](#). <sup>[50]</sup> <sup>[51]</sup>

### Donepezil for Lewy body dementia

Not much research has looked at taking donepezil for Lewy body dementia. We found one good-quality study (a randomised controlled trial) with 140 people. It found that people taking donepezil had improvements in their thinking ability and behaviour, compared with those who took a dummy (placebo) treatment. <sup>[43]</sup>

## Donepezil for vascular dementia

We found a review of the research that looked at 1,219 people with vascular dementia ,<sup>[41]</sup> and another, smaller study.<sup>[42]</sup> People took donepezil for six months. It helped people's memory and thinking, but only by a small amount.

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## Galantamine

In this section

[Does it work?](#)

[What is it?](#)

[How can it help?](#)

[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on galantamine?](#)

This information is for people who have dementia, or their carers. It tells you about galantamine (Reminyl), a treatment used for dementia. It is based on the best and most up-to-date research.

### Does it work?

Yes. If someone with [mild or moderate Alzheimer's disease](#) takes galantamine, their memory may get better. And they may be able to think more clearly. But the benefit is likely to be small and we don't know how long it will last.

Galantamine may also help people with vascular dementia .

### What is it?

The brand names for galantamine are Reminyl and Reminyl XL. You can take it as a tablet or a liquid. This medicine is for people with mild or moderate Alzheimer's disease.<sup>[52]</sup> To learn more, see [How is Alzheimer's disease treated?](#)

Guidance for doctors in the NHS says there may be some situations where other people with dementia can also be prescribed this drug.<sup>[53]</sup>

### How can it help?

Some people with mild or moderate Alzheimer's disease or vascular dementia do better in memory and thinking tests when they take galantamine.<sup>[54]</sup> <sup>[55]</sup> <sup>[56]</sup>

Galantamine may also help people look after themselves better and have fewer symptoms like being easily upset (agitated), restless, and aggressive.<sup>[54]</sup>

One summary of all the research into galantamine and similar drugs said that the improvements might be so small that they made little difference to the person taking the drug.<sup>[44]</sup> The study also said galantamine seemed to work about as well as a similar drug called [donepezil](#) . However, another study found that donepezil worked slightly better.<sup>[39]</sup>

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Galantamine seems to help some people with vascular dementia with remembering, but the difference is small, and studies found that it didn't really improve people's lives. <sup>[57]</sup>  
<sup>[58]</sup> <sup>[59]</sup> <sup>[59]</sup>

## How does it work?

Galantamine is one of a group of drugs called cholinesterase inhibitors. These drugs increase the amount of a chemical called **acetylcholine** in the brain. Acetylcholine is an important chemical messenger ( neurotransmitter ) in the parts of the brain that control memory, thinking, and decision making. People with Alzheimer's disease and other dementias have less acetylcholine than other people. This may explain why people with dementia get confused and become forgetful.

When brain cells need to communicate with other brain cells, messages are carried by acetylcholine and other neurotransmitters. When a message has been delivered, the acetylcholine is no longer needed and is destroyed by enzymes . Galantamine stops these enzymes working. So, the acetylcholine isn't destroyed and keeps helping signals travel through the brain. This might improve memory and thinking.

## Can it be harmful?

Like other drugs in this group, such as [donepezil](#) and [rivastigmine](#) , galantamine can have side effects. Common side effects include: <sup>[54]</sup>

- Feeling sick (about 40 in 100 people get this)
- Vomiting (about 20 in 100 people get this)
- Feeling dizzy (about 10 in 100 people get this)
- Getting headaches
- Losing appetite
- Losing weight.

The side effects are worse with a higher dose of this drug. Some research found that more than 25 in 100 people on a higher dose of galantamine stopped taking it because of the side effects, compared with 15 in 100 who stopped taking a lower dose. <sup>[54]</sup> So, doctors often start people on a lower dose and increase it gradually.

The side effects of galantamine don't seem as bad as the side effects of rivastigmine, but they seem to be worse than the side effects of [donepezil](#) . <sup>[39]</sup>

## How good is the research on galantamine?

There is good evidence that galantamine helps people with some types of dementia.

# Dementia

One large summary of the research (a [systematic review](#)) that looked at 3,777 people with mild or moderate Alzheimer's disease.<sup>[54]</sup> People who took galantamine for six months did better on memory and thinking tests than people who took a dummy treatment (a [placebo](#)). And other studies have found similar results.<sup>[39]</sup> <sup>[56]</sup>

Galantamine might help a little with symptoms such as being aggressive or anxious. But the benefit, if any, is likely to be very small.<sup>[54]</sup> <sup>[39]</sup> Some studies found it could help, and others didn't.<sup>[59]</sup> Galantamine seems to work just as well as another drug called donepezil.  
<sup>[60]</sup>

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## Memantine

In this section

[Does it help?](#)

[What is it?](#)

[How can it help?](#)

[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on memantine?](#)

This information is for people who have dementia, or their carers. It tells you about memantine (Ebixa), a treatment used for dementia. It is based on the best and most up-to-date research.

### Does it help?

Yes. If someone with [moderate or severe Alzheimer's disease](#) takes memantine, their memory may improve slightly and they may be able to think more clearly. They may also be able to do more things for themselves, which means they need less help from carers.

Memantine may help people with [vascular dementia](#) as well.

### What is it?

Memantine is a drug for the treatment of Alzheimer's. Its brand name is Ebixa. In the NHS, memantine is recommended for people with severe Alzheimer's. However, it can also be taken by people with moderate Alzheimer's who are unable to take [donepezil](#), [galantamine](#), or [rivastigmine](#).<sup>[61]</sup> To learn more, see [How is Alzheimer's disease treated?](#)

Memantine is usually taken in the morning as a tablet. Some people with dementia have to take memantine for up to four months before they get any benefit. If there's no sign of side effects after taking the drug for about one month, doctors may recommend a larger dose. The larger dose may work better.

## How can it help?

Memantine is likely to help with memory and thinking.<sup>[62] [63] [64] [65]</sup> But the improvements will probably be small. People with more severe dementia may be helped the most.<sup>[66] [67]</sup>

Memantine can also help people do more for themselves.<sup>[63] [64]</sup> But, again, the improvements will probably be small.

People with Alzheimer's or vascular dementia who take memantine may not need as much help from day to day.<sup>[63] [64]</sup> In one study, people with dementia who took memantine needed 52 fewer hours of care each month on average than those taking a dummy treatment (a placebo).<sup>[68]</sup>

We found one small study of memantine in 75 people with Lewy body dementia. It found that memantine helped people with their memory and thinking, but that it didn't help them do more for themselves.<sup>[69]</sup>

Memantine might help slightly with symptoms such as aggression or anxiety.<sup>[70]</sup> But the benefit, if any, is likely to be very small.

One summary of the research looking at memantine and other dementia drugs (called cholinesterase inhibitors) said they made small improvements in people's memory and thinking, but the improvements might be so small they made little difference to the person with dementia.<sup>[44]</sup>

## How does it work?

Memantine changes the way brain cells communicate with each other. It also alters the amount of calcium in brain cells. One theory about Alzheimer's is that brain cells die because there is a build-up of calcium. So, if memantine can stop or slow down this build-up, it might slow down the brain damage linked to Alzheimer's.<sup>[63] [64]</sup>

## Can it be harmful?

People taking memantine sometimes get constipation, high blood pressure, dizziness, drowsiness, vomiting, problems walking, and headaches.<sup>[71] [72]</sup> Less commonly, some people taking memantine develop heart failure, and there have been rare reports of people getting seizures.

But one large study in more than 2,300 people with Alzheimer's disease found that side effects with memantine were no worse than with a dummy drug (placebo).<sup>[73]</sup>

## How good is the research on memantine?

There's good evidence that memantine can help with the symptoms of dementia.

We found a large review of the research (a [systematic review](#)) that looked at nine good studies ([randomised controlled trials](#)) involving 2,340 people.<sup>[74]</sup> It found that memantine could help people with memory and thinking. People took memantine for between three months and seven months. Other large studies have found similar results.<sup>[67]</sup> In some studies, people could do more things for themselves if they took memantine. But in one study, the treatment didn't make any difference to how well people coped.<sup>[74]</sup>

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## Carbamazepine

In this section

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[Can it be harmful?](#)

[How good is the research on carbamazepine?](#)

This information is for people who have dementia, or their carers. It tells you about carbamazepine (Tegretol), a treatment used for dementia. It is based on the best and most up-to-date research.

### Does it work?

Possibly. There's some evidence that carbamazepine may help some people with [Alzheimer's disease](#) who are easily upset (agitated) or aggressive. It may also help people who have [vascular dementia](#) or mixed dementia (this means they have both Alzheimer's disease and vascular dementia).

### What is it?

Carbamazepine is a drug that doctors normally use to treat people with epilepsy. But some doctors have prescribed it for people with dementia to see if it helps.

It's from a group of drugs that doctors call **anticonvulsants**. Its brand names are Tegretol and Tegretol Retard.

### How can it help?

One small study has shown that people who take carbamazepine are likely to be less agitated and aggressive within six weeks.<sup>[75]</sup>

Carers have noticed that people taking carbamazepine need less attention than people who don't take the drug.

### How does it work?

We don't know exactly how carbamazepine works to improve agitation and aggression. It may stop some signals that cause these symptoms travelling across the brain.

## Can it be harmful?

Some people who take carbamazepine lose coordination.<sup>[75]</sup> This means they might not be able to move as easily as they normally would or their movements might become jerky. But this side effect is rare. Also, some people taking carbamazepine lose their way more often. But, again, this is rare.

Rarely, some people taking carbamazepine get a very bad rash. This can be serious, or even life-threatening. But the risk is fairly small. Between 1 in 10,000 and 6 in 10,000 people who take carbamazepine get this rash.<sup>[76]</sup>

There's a bigger risk of getting a serious rash if you have a particular genetic type. Nearly all people with this genetic type are from Asian backgrounds. Doctors are advised to offer Asian people a blood test to check for their genetic type, before prescribing carbamazepine.<sup>[76]</sup> It's especially important to have the test if you come from a Han Chinese, Hong Kong Chinese, or Thai background.

## Self harm and suicide

There is a very small risk that taking carbamazepine might make you more likely to think about suicide or harming yourself.<sup>[77]</sup> If you are worried about any thoughts or feelings you have, see your doctor straight away.

## How good is the research on carbamazepine?

There isn't much evidence that carbamazepine helps people with dementia who are easily upset (agitated) or aggressive. We found only one good-quality study (called a randomised controlled trial).<sup>[75]</sup>

It involved 51 people who lived in a nursing home. Some of the people had Alzheimer's, some had vascular dementia, and some had both (this is called mixed dementia).

Half the people took carbamazepine and half took a dummy treatment (a placebo). After six weeks, the study was stopped because some of the people taking carbamazepine were doing much better than those taking the placebo.

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## Haloperidol

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[How good is the research on haloperidol?](#)

This information is for people who have dementia, or their carers. It tells you about haloperidol (Haldol), a treatment sometimes used for dementia. It is based on the best and most up-to-date research.

## Does it work?

Haloperidol may reduce aggression and agitation (getting upset easily) in people with **Alzheimer's disease** or **vascular dementia**. But it can cause serious and unpleasant side effects.

## What is it?

Haloperidol is an **antipsychotic drug**. This group of drugs is normally used to treat people who have serious mental health problems, that make them feel disconnected from their surroundings.

You can take haloperidol as tablets, capsules, a liquid, or an injection. Its brand names include Haldol, Dozic, and Serenace.

## How can it help?

Taking haloperidol may reduce aggression (lashing out, swearing, and shouting) and agitation (getting upset easily) in some people with dementia.

It seems to work as well as a drug called [risperidone](#).<sup>[78]</sup><sup>[79]</sup> (Risperidone is no longer recommended as a treatment for dementia in older people.)

## How does it work?

Haloperidol works by blocking the action of dopamine, a chemical in the brain that helps electrical signals travel between brain cells (a **neurotransmitter**).

Symptoms such as delusions, aggression, and violence may happen because there is too much dopamine in the brain. Lowering the amount of dopamine may help these symptoms.

## Can it be harmful?

Antipsychotics can have dangerous side effects when they're used to treat older people with dementia. People taking these drugs run a higher risk of serious heart problems or a stroke. Antipsychotics can also cause unpleasant but less dangerous problems, like muscle twitches.

Doctors in the UK are advised not to prescribe antipsychotic drugs for people with dementia.<sup>[53]</sup>

One study looked at long-term use of antipsychotic drugs, including haloperidol, for people with dementia. It found people taking one of these drugs were much less likely to be alive one, two, or three years later, compared with people taking a dummy ( **placebo** ) drug.<sup>[80]</sup>

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All antipsychotic drugs can increase the risk of a **stroke** when they're used to treat older people with dementia. <sup>[81]</sup> There's a lower risk with older antipsychotics, like haloperidol, than with the newer ones, which include [olanzapine](#) and [risperidone](#) .

Another study suggested that the antipsychotic drugs haloperidol (brand name Haldol), olanzapine (brand name Zyprexa), and risperidone (Risperdal) were linked to a rise in the chances of people with dementia dying shortly after starting to take them. Another antipsychotic drug, quetiapine (Seroquel), did not show this increased risk. <sup>[82]</sup>

If you're caring for someone with dementia and their doctor recommends an antipsychotic drug, ask about the risks, and what the benefits of treatment might be.

One study has found that haloperidol increases the risk of a dangerously fast heartbeat. <sup>[83]</sup> If this isn't treated, it can make the heart suddenly stop working. This is called **sudden cardiac arrest**.

In the study, the risk of heart problems was highest in women, older people, and people who'd started taking haloperidol in the last 90 days. <sup>[83]</sup> But it's not clear exactly how big the risk is. <sup>[84]</sup> One study found that, on average, over a year, about 1 in 1,000 people die suddenly of a cardiac arrest. <sup>[83]</sup> Haloperidol seems to increase this risk to roughly 5 in 1,000 deaths each year.

In the US, the Food and Drug Administration says at least 28 people taking unusually high doses of haloperidol, or having haloperidol injections into a vein instead of a muscle, have had problems with a fast heartbeat. Some people have died. The FDA advises doctors to take account of this risk when deciding on treatments. <sup>[84]</sup>

Haloperidol can make people have body movements they can't control. <sup>[78]</sup> <sup>[85]</sup> This side effect also happens with other antipsychotic drugs.

People taking these drugs may find:

- They cannot stop their neck twisting round
- They make odd faces (grimaces)
- Their arms and legs go rigid
- They shuffle when they try to walk
- They cannot stop pacing or tapping a foot.

One study found that about 1 in 5 people who took haloperidol got these unwanted movements. <sup>[79]</sup> This compared with 1 in 7 people who got these movements when they took risperidone. Also, the movements were much worse in people who took haloperidol.

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Haloperidol can also make people feel drowsy.<sup>[78]</sup> One study found that people who took haloperidol became more confused than those who didn't take it.<sup>[86]</sup>

People with **Lewy body dementia** may be most likely to get side effects if they take haloperidol.<sup>[21]</sup> For this reason, haloperidol is not usually given to people with Lewy body dementia.

### How good is the research on haloperidol?

We found two large summaries of the research ( **systematic reviews** ) that looked at people taking haloperidol for dementia.<sup>[87]</sup> <sup>[88]</sup>

The first summary found that it didn't help people become less agitated (easily upset).<sup>[87]</sup> It did make some people slightly less aggressive.

The second review compared haloperidol with another drug called risperidone. (Risperidone isn't recommended anymore to treat older people with dementia.)<sup>[88]</sup> The research found that both drugs helped people be less agitated and think more clearly. But people taking haloperidol were more likely to get side effects.

One study found that people with dementia who took drugs like haloperidol (called antipsychotic drugs) actually did worse than people who took a pretend treatment (a **placebo** ).<sup>[89]</sup> Their problems with memory and thinking got worse more quickly.

The research also shows that haloperidol can increase the risk of life-threatening heart problems. It's not clear exactly how big the risk is.<sup>[84]</sup> One study found that, on average, over a year, about 1 in 1,000 people die suddenly of a cardiac arrest.<sup>[90]</sup> Haloperidol seems to increase this risk to roughly 5 in 1,000 deaths each year.

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## Rivastigmine

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This information is for people who have dementia, or their carers. It tells you about rivastigmine (Exelon), a treatment used for dementia. It is based on the best and most up-to-date research.

### Does it work?

Yes. Rivastigmine may help improve the memory of people with dementia. Rivastigmine may also help some people think more clearly, but the improvement is likely to be small. Rivastigmine probably won't help people who are upset easily or are aggressive.

# Dementia

Rivastigmine may also help people with **Lewy body dementia** or **vascular dementia** .

Rivastigmine seems to have more side effects than [donepezil](#) and [galantamine](#) , which are similar types of drugs.

## What is it?

You can take rivastigmine as a capsule, liquid, or skin patch. Its brand name is Exelon. This medicine is for people with mild or moderate Alzheimer's disease.<sup>[91]</sup> To learn more, see [How is Alzheimer's disease treated?](#)

Guidance for doctors in the NHS says there may be some situations where other people with dementia can also be prescribed this drug.<sup>[92]</sup>

## How can it help?

In some people with mild or moderate Alzheimer's disease, rivastigmine can help with symptoms like forgetfulness and confusion. But studies show that the improvement is only small and it's hard to say how it affects a person's day-to-day life.<sup>[93]</sup>

Rivastigmine may also help memory symptoms for people with Lewy body dementia or vascular dementia, although not much good-quality research has explored this.<sup>[94]</sup> <sup>[95]</sup>  
<sup>[96]</sup>

There is no good evidence to show that it can help stop people being aggressive or getting upset easily.<sup>[97]</sup>

## How does it work?

Rivastigmine is one of a group of drugs called cholinesterase inhibitors. Drugs in this group increase the amount of a chemical called **acetylcholine** in the brain. Acetylcholine is an important chemical messenger ( **neurotransmitter** ) in the parts of the brain that control memory, thinking, and decision making. People with dementia have less acetylcholine than other people do. This may explain why people with dementia get confused and become forgetful.

When brain cells need to communicate with other brain cells, messages are carried by acetylcholine and other neurotransmitters. When the message has been delivered, the acetylcholine is no longer needed and is destroyed by **enzymes** . Rivastigmine stops these enzymes working, so the acetylcholine isn't destroyed and keeps helping signals travel through the brain. This might improve memory and thinking.

## Can it be harmful?

Rivastigmine has some common side effects. These include:<sup>[93]</sup>

- Feeling sick

## Dementia

- Vomiting
- Getting diarrhoea
- Having pain in the part of your body below your chest (your abdomen)
- Feeling dizzy
- Getting headaches
- Losing your appetite.

The higher the dose of rivastigmine, the worse the side effects. So, when doctors give people rivastigmine, they start with a low dose. If the side effects are not too bad, they build up the dose slowly.

About one-third of people who take rivastigmine have to stop taking it because of side effects.<sup>[93]</sup>

This happens less often with other, similar drugs, such as [donepezil](#) and [galantamine](#).<sup>[39]</sup>

If you are taking rivastigmine as a patch, you need to be careful not to use more than one in 24 hours. Taking more than one patch a day can cause side effects such as feeling sick to the stomach, vomiting, and diarrhoea. It can also make your blood pressure go up and cause hallucinations.

### How good is the research on rivastigmine?

There's good research that shows rivastigmine can help people with some of the symptoms of dementia.<sup>[94] [95] [93]</sup> But this treatment has side effects. A large summary of the research (a [systematic review](#)) looked at 3,450 people with Alzheimer's disease.<sup>[93]</sup> People's memory and thinking improved after six months of taking rivastigmine, but improvements were small. We don't know whether treatment helped people live their normal lives.

Two good-quality studies ([randomised controlled trials](#)) found that rivastigmine helped memory and thinking for people who had Lewy body dementia or dementia because of Parkinson's disease.<sup>[94] [95]</sup> A large good-quality study also suggested that rivastigmine can improve memory and thinking for people with vascular dementia. But we need more research to confirm these findings.<sup>[96]</sup>

Other studies have looked at whether rivastigmine can help ease symptoms such as aggression, agitation, and feeling easily upset in people with dementia. In both of the good-quality studies we looked at rivastigmine made no difference.<sup>[98] [99]</sup>

## Olanzapine

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[How good is the research on olanzapine?](#)

This information is for people who have dementia, or their carers. It tells you about olanzapine, a treatment used for dementia. It is based on the best and most up-to-date research.

### Does it work?

Some research shows that olanzapine can help some people with dementia who get aggressive or easily upset (agitated), or who have symptoms like seeing things that aren't there (hallucinations). But other studies have found that this treatment doesn't help.

Also, this drug increases the risk of having a **stroke** for older people with dementia. Experts say olanzapine shouldn't be used any more to treat people with dementia.

### What is it?

Olanzapine is an antipsychotic drug. It is normally used to treat people with serious mental health problems like **schizophrenia**.

Olanzapine has sometimes been given to people in the [later stages](#) of Alzheimer's disease or other types of dementia.

But the Committee on Safety of Medicines (CSM) says olanzapine should no longer be used to treat older people with Alzheimer's disease or other types of dementia because the drug increases people's risk of having a stroke.<sup>[100]</sup> The CSM is an independent group of experts that advises the government on drug safety.

If you are looking after someone with Alzheimer's or another form of dementia and they are taking olanzapine, you should arrange for them to see their doctor as soon as possible. They should not stop taking the drug without seeing a doctor.

The CSM's advice about olanzapine is only for people with dementia. But experts also say doctors should be cautious when giving olanzapine to people who have had a stroke or a **mini-stroke**, or have **high blood pressure**, or have **diabetes**.

### How can it help?

One study has found that for people who have severe dementia, olanzapine can help with:<sup>[101]</sup>

- Hallucinations (hearing or seeing things that aren't there)

# Dementia

- Delusions (believing things that couldn't be true)
- Aggression
- Agitation (getting upset easily).

In one study, caregivers in nursing homes said that patients who take olanzapine are easier to look after. <sup>[102]</sup> But another study has found that olanzapine has no effect. <sup>[103]</sup>

Olanzapine has serious side effects and is no longer considered safe for older people with dementia.

## How does it work?

It is thought that olanzapine may work by blocking the activity of two chemicals in the brain, serotonin and dopamine. These chemicals help electrical signals travel between brain cells. They are known as neurotransmitters.

Symptoms such as delusions, aggression, and violence may happen because there is too much serotonin or dopamine in the brain. Stopping these chemicals working might help these symptoms.

## Can it be harmful?

Antipsychotics can have dangerous side effects when they're used to treat older people with dementia. People taking these drugs run a higher risk of serious heart problems or a stroke. Antipsychotics can also cause unpleasant but less dangerous problems, like muscle twitches.

Doctors in the UK are advised not to prescribe antipsychotic drugs for people with dementia. <sup>[53]</sup>

Another study suggested that the antipsychotic drugs haloperidol (brand name Haldol), olanzapine, and risperidone (Risperdal) were linked to a rise in the chances of people with dementia dying shortly after starting to take them. Another antipsychotic drug, quetiapine (Seroquel), did not show this increased risk. <sup>[82]</sup>

If you're caring for someone with dementia and their doctor recommends an antipsychotic drug, ask about the risks, and what the benefits of treatment might be.

Olanzapine can also have some less serious side effects. About one-quarter of people taking olanzapine become drowsy. And about one-fifth have problems walking. <sup>[102]</sup> One study has also found that people who take it are more likely to gain weight, lose control of their bladder, or lose their appetite. <sup>[103]</sup>

People taking olanzapine may also have a higher risk of getting diabetes and **hyperglycaemia** (this is when you have too much sugar in your blood). <sup>[104]</sup>

## Dementia

A big problem with older antipsychotic drugs, such as haloperidol, is that they can give you muscle problems. Some people get stiff or shaking muscles, or unusual movements of their face. These problems are less common with newer antipsychotic drugs like olanzapine. <sup>[105]</sup>

### How good is the research on olanzapine?

There isn't very much evidence on olanzapine for dementia and the studies say different things.

One study included 206 people with **Lewy body dementia** or severe **Alzheimer's disease**. The people in the study all lived in nursing homes. Olanzapine helped people who took a low dose. People were less agitated and had fewer hallucinations (seeing things that aren't really there). And carers found it easier to look after the people who took olanzapine. But a higher dose didn't seem to help. <sup>[106]</sup> <sup>[107]</sup>

In another study involving 650 older patients with Alzheimer's olanzapine didn't help no matter what dose was given. <sup>[108]</sup>

Olanzapine can cause serious side effects. The Committee on Safety of Medicines, an independent group of experts that advises the government about drug safety, says olanzapine increases the risk of having a **stroke**.

This risk is as big as the risk you get if you take [risperidone](#), a similar type of drug used to treat dementia. <sup>[109]</sup>

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## Risperidone

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[How good is the research on risperidone?](#)

This information is for people who have dementia, or their carers. It tells you about risperidone, a treatment used for dementia. It is based on the best and most up-to-date research.

### Does it work?

Risperidone can help some people with dementia who have symptoms such as aggression and agitation (getting upset easily). But older people who take this drug for dementia have an increased risk of having a **stroke**. Risperidone is no longer considered a safe treatment for older people.

## What is it?

Risperidone is an antipsychotic drug. It is normally used to treat people with serious mental health problems like **schizophrenia**. It is a newer type of antipsychotic drug and may have fewer side effects than older antipsychotic drugs.

Risperidone has sometimes been given to people in the later stages of dementia.

But the Committee on Safety of Medicines (CSM) says risperidone should no longer be used to treat older people with **Alzheimer's disease** or other types of dementia, because the drug increases their risk of having a stroke. <sup>[100]</sup> The CSM is an independent group of experts that advises the British government on drug safety.

Some older people with dementia have times when they are very disturbed and out of touch with reality. Doctors call this condition **acute psychosis**. The CSM says these people can take risperidone but only for a short time and only when being treated by a specialist.

If you are looking after someone with Alzheimer's or another form of dementia and they are taking risperidone, you should arrange for them to see their doctor as soon as possible. They should not stop taking the drug without first seeing a doctor.

The CSM's advice about risperidone is only for people with dementia. But doctors are also advised to be cautious when giving risperidone to people who have had a stroke or a **mini-stroke**, or have **high blood pressure** or **diabetes**.

## How can it help?

Someone who takes risperidone is likely to: <sup>[85]</sup> <sup>[110]</sup>

- Become less aggressive (they're less likely to scream, curse, or lash out at other people)
- Feel less anxious
- Have fewer moments when they believe things that couldn't be true (delusions).

But risperidone has serious side effects and is no longer considered safe for older people with dementia.

## How does it work?

Risperidone works by blocking the activity of two chemicals in the brain, **serotonin** and **dopamine**. These chemicals help electrical signals travel between brain cells. They are known as **neurotransmitters**.

Symptoms such as delusions, aggression, and violence may happen because there is too much serotonin or dopamine in the brain. Stopping these chemicals working might help these symptoms.

## Can it be harmful?

Antipsychotics can have dangerous side effects when they're used to treat older people with dementia. People taking these drugs run a higher risk of serious heart problems or a stroke. Antipsychotics can also cause unpleasant but less dangerous problems, like muscle twitches.

Doctors in the UK are advised not to prescribe antipsychotic drugs for people with dementia. <sup>[53]</sup>

One study looked at long-term use of antipsychotic drugs, including risperidone, for people with dementia. It found people taking one of these drugs were much less likely to be alive 1, 2, or 3 years later, compared with people taking a dummy (placebo) drug. <sup>[80]</sup>

Another study suggested that the antipsychotic drugs haloperidol (brand name Haldol), olanzapine (brand name Zyprexa), and risperidone were linked to a rise in the chances of people with dementia dying shortly after starting to take them. Another antipsychotic drug, quetiapine (Seroquel), did not show this increased risk.

If you're caring for someone with dementia and their doctor recommends an antipsychotic drug, ask about the risks, and what the benefits of treatment might be.

Other side effects of risperidone include: <sup>[85]</sup> <sup>[111]</sup>

- Sleepiness
- Abnormal body movements and posture
- Swelling in the arms and legs.

Risperidone can also increase your risk of getting **diabetes** and hyperglycemia (this is when you have too much of a sugar called glucose in your blood). <sup>[112]</sup>

## How good is the research on risperidone?

There is some quite good evidence that risperidone can help some symptoms of dementia. But this drug can cause serious side effects.

We looked at two large summaries of the research ( **systematic reviews** ) that looked at people who took risperidone for dementia. <sup>[85]</sup> <sup>[113]</sup> These reviews looked at three studies ( **randomised controlled trials** ) of more than 1,000 people with dementia who took either risperidone or a dummy treatment ( **placebo** ). People who took risperidone for four months had fewer symptoms (such as being aggressive or agitated) than people who took a placebo.

However, some studies also found that people who took risperidone were more likely to get serious side effects.<sup>[114] [115]</sup> About 4 in 100 people who took risperidone had a stroke, and some people died. Only 2 in 100 people taking a dummy treatment had a stroke.

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## Ginkgo biloba

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[How good is the research on Ginkgo biloba?](#)

This information is for people with dementia, or their carers. It tells you about Ginkgo biloba, a herb that is sometimes used to treat symptoms of dementia.

### Does it work?

We don't know. Some studies have found that Ginkgo biloba improved symptoms of forgetfulness and confusion for people with dementia. However, many of these studies are unreliable because they didn't look at many people or weren't done very well. Most recent, good-quality trials found that people didn't get any benefit from Ginkgo.

There are unlikely to be any important benefits from Ginkgo.

### What is it?

Ginkgo biloba is a popular herbal remedy, especially in Chinese herbal medicine. It is an extract of leaves from the Chinese maidenhair tree and has been used to treat a wide variety of disorders. Ginkgo herbal treatments contain chemicals found in the leaves. These chemicals are called the active ingredients.

You can buy Ginkgo from health food shops and pharmacies, and on the internet. Do bear in mind that products will vary in quality and in the amounts of the active ingredients they contain. Most of the studies we looked at used an extract of Ginkgo that was very pure.

The usual dose of Ginkgo biloba is between 120 milligrams (mg) and 240 mg a day.

### How can it help?

There is not enough good evidence to say whether Ginkgo biloba can help. Individual, less-reliable studies have found that taking Ginkgo biloba can help some people with Alzheimer's disease or vascular dementia:<sup>[116]</sup>

- Think more clearly
- Feel in a better mood

## Dementia

- Get on with people better.

However, looking at all the research together, it's not possible to say if it helps much, if at all. <sup>[116]</sup> The newest and most reliable studies have tended not to find any benefits. There would have to be a lot more good-quality research that said it worked before we could say for sure.

### How does it work?

If it does work, it may protect some brain cells from the damage caused by Alzheimer's disease or other dementias. And it may improve the flow of blood to and from the brain. <sup>[117]</sup>

### Can it be harmful?

Ginkgo biloba doesn't have many side effects. One large study found that people taking Ginkgo biloba didn't get any more side effects than people taking a dummy treatment (a placebo) for comparison. <sup>[118]</sup> The most common side effects are headaches and an upset stomach. <sup>[118]</sup>

People who use Ginkgo should tell their doctor, because it can sometimes be harmful if taken with other drugs. This is especially important for people taking treatments to prevent blood clots, such as anticoagulants, antithrombotics, aspirin, and warfarin. <sup>[119]</sup>

### How good is the research on Ginkgo biloba?

Some individual trials have found that Ginkgo biloba can help people with Alzheimer's disease to think more clearly. However, looking at all the research together shows some inconsistent results. <sup>[116]</sup> Most newer and better quality studies haven't found any benefits.

So, overall, there is not enough evidence to recommend Ginkgo biloba for people with Alzheimer's disease and other kinds of dementia.

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## Benzodiazepines

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[How good is the research on benzodiazepines?](#)

This information is for people with dementia and their carers. It tells you about benzodiazepines, a type of treatment sometimes used for dementia. It's based on the best and most up-to-date research.

## Do they work?

We're not certain. There's some evidence that benzodiazepines might help some people with dementia who are easily upset and are restless. But we need to see a lot more research before we can know for certain. Benzodiazepines also have many side effects.

## What are they?

Benzodiazepines are a type of **tranquilliser**. This means they slow your brain down.

They make you feel calmer, but they can also make you feel sleepy and exhausted. They are usually prescribed to treat anxiety and to help people sleep better. In high doses, they can also help your muscles relax. <sup>[120]</sup>

Benzodiazepines are also often used to treat symptoms of dementia such as restlessness and getting upset easily. There are many different benzodiazepines and they are usually given as tablets. However, the only benzodiazepine used to treat dementia that doctors have studied is a type that is injected into your muscle. It is called intramuscular lorazepam. It may be called just lorazepam or have the brand name Ativan.

You shouldn't stop taking benzodiazepines suddenly, especially if you have been taking them a long time. Talk to your doctor if you want to stop taking benzodiazepines. If you need to stop taking them, you should gradually reduce your dose until it's safe to stop completely. <sup>[121]</sup>

Benzodiazepines can be addictive if you take them for more than a few weeks. It can then be hard to stop taking them. This is why you shouldn't take them for more than two to four weeks. <sup>[121]</sup>

## How can they help?

We're not certain that they can. One study has found that benzodiazepine injections into a muscle helped patients get upset less easily and feel less restless. But this study only looked at how well benzodiazepines worked to ease those symptoms two hours after the benzodiazepines had been taken. <sup>[122]</sup> There is no good evidence to show how that benzodiazepines can help the symptoms of dementia during a longer time, like a few weeks or a few months.

## How do they work?

Benzodiazepines change the way a chemical called gamma-aminobutyric acid (GABA) works in your brain. GABA stops some cells in your brain communicating with each other, slowing down your brain. Benzodiazepines help GABA work harder, slowing down your brain even more. As a result, you feel calmer. Benzodiazepines also help you sleep.

## Can they be harmful?

Yes. Benzodiazepines can have serious drawbacks. Here are some of the most common side effects.

## Feeling sleepy

This is the most common side effect of benzodiazepines. About two-thirds of the people who take diazepam say it makes them sleepy. This might just be annoying, or it could stop you being able to do anything. You shouldn't try to drive or operate machinery whilst you are taking benzodiazepines. <sup>[123]</sup>

## Problems with memory

Benzodiazepines can make your memory worse. You may find it harder to remember things such as shopping lists and appointments. Your memory may not return to how it was before until a few weeks after you stop treatment. <sup>[124]</sup>

## Dizziness

About 1 in 3 people say benzodiazepines make them dizzy. <sup>[125]</sup>

## Getting addicted (dependency)

When you become addicted to a drug, you feel a strong need to keep taking it, and you can't stop taking it without getting unpleasant symptoms. (This is known as going through **withdrawal**.) With benzodiazepines, withdrawal symptoms may include feeling agitated or irritated, being unable to sleep, and losing your appetite. Some people get seizures or twitching muscles. <sup>[120]</sup>

## Accidents

Taking benzodiazepines increases your risk of having an accident. You may be twice as likely to have a traffic accident whilst you are taking benzodiazepines. <sup>[126]</sup>

Medicines often have side effects for frail older people. In one study, researchers looked at how long people in nursing homes lived after being prescribed drugs that affect the nervous system, such as antipsychotics, antidepressants, and benzodiazepines. They found that all these drugs raise the risk of death in these groups of people. However, we can't be sure the deaths were caused by the drugs. It may simply be the case that people who needed these drugs were already nearer the end of their lives, compared with people who didn't need them. <sup>[127]</sup>

## How good is the research on benzodiazepines?

The evidence on benzodiazepines for dementia isn't good. We found only one good-quality study. This study, among 272 people with dementia, compared benzodiazepines with another treatment that is used to treat dementia and an inactive treatment (called a placebo). The benzodiazepine treatment was given as an injection into the muscle. The study found that two hours after the injection people were much less likely to feel easily upset and be restless. <sup>[128]</sup>

We found no good-quality studies that looked at whether benzodiazepines taken as tablets can help people with dementia.

## Music therapy

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[How good is the research on music therapy?](#)

This information is for people with dementia and their carers. It tells you about music therapy, a treatment sometimes used for dementia. It's based on the best and most up-to-date research.

### Does it work?

We're not sure. There's not enough evidence to say either way whether music therapy helps people who have dementia.

### What is it?

There are many different kinds of music therapy. It can mean simply listening to a CD or a tape. Or it can mean going to a concert. It can also mean singing along to music, writing songs, dancing to music, or playing instruments. Music therapists talk to people to design sessions that will suit them.

### How can it help?

We're not certain that it can. But some research suggests that music therapy can improve the following symptoms in some people: <sup>[129]</sup>

- Wandering
- Being restless during meals
- Being easily upset (agitated)
- Acting aggressively, swearing, or shouting
- Being irritable.

It may also help people with their memory and thinking. <sup>[130]</sup>

### How does it work?

We don't know why music therapy should help people who have dementia. It could possibly make people feel calmer, more relaxed, or happier. Or it could distract them from whatever is troubling them.

## Can it be harmful?

There's no evidence that music therapy can be harmful.

## How good is the research on music therapy?

There have been lots of studies looking at the effects of music therapy on people with dementia. But most of them have been small so we can't rely on the results.

We found a summary of the research (a [systematic review](#)) that looked at 21 studies of music therapy for people with dementia.<sup>[131]</sup> It found that music therapy helped people with thinking and memory. People were also less likely to be easily upset or aggressive. A more recent summary of the research with 19 studies had similar results.<sup>[130]</sup> However, many of the studies in both summaries were poor quality.

We still need more research to say for sure whether this treatment can help, and what types of music therapy might be best.

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## Nonsteroidal anti-inflammatory drugs (NSAIDs)

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[How good is the research on NSAIDs?](#)

This information is for people with dementia and their carers. It tells you about nonsteroidal anti-inflammatory drugs, a treatment sometimes used for people with dementia. It's based on the best and most up-to-date research.

## Do they work?

We don't know. Some research says [nonsteroidal anti-inflammatory drugs](#) (NSAIDs) can help people who have [Alzheimer's disease](#). But other studies have found that these drugs don't help. We need more research to be certain.

There haven't been any studies of whether NSAIDs help people with [vascular dementia](#) or [Lewy body dementia](#).

Some NSAIDs have been linked to serious side effects when people take them for a long time.

## What are they?

NSAIDs are usually used to relieve pain or to reduce [inflammation](#) and swelling. So, if you twist your ankle or hurt your back, you'll probably take an NSAID. They're also commonly used to treat [arthritis](#).

Ibuprofen is a well-known NSAID. Aspirin is also an NSAID.

## Dementia

You can buy aspirin and ibuprofen from a pharmacy. But stronger NSAIDs are available only on prescription from a doctor. The drugs (and their brand names) that have been used in studies of people with Alzheimer's disease include:

- indometacin (Indocid)
- diclofenac (Voltarol)
- rofecoxib (Vioxx)
- naproxen (Naprosyn, Arthroxen)
- celecoxib (Celebrex)
- ibuprofen
- aspirin.

Rofecoxib (Vioxx) isn't available any more because it can cause serious side effects. People who have heart problems shouldn't take diclofenac. <sup>[132]</sup>

### How can they help?

There hasn't been much good research on taking NSAIDs for dementia. Overall, the studies so far suggest that they don't help. <sup>[133]</sup>

In one study, some people who took indometacin did better on tests of memory and thinking after six months. <sup>[134]</sup> But another study found diclofenac had little or no effect. <sup>[135]</sup> And another study found that rofecoxib and naproxen didn't work any better than a dummy treatment (a placebo). <sup>[136]</sup>

Two more recent, big studies suggest that the NSAIDs naproxen and celecoxib don't help. <sup>[137]</sup> <sup>[138]</sup>

Another recent study found that ibuprofen didn't help. <sup>[139]</sup>

A summary of the research (a systematic review) also found no good evidence that NSAIDs help with Alzheimer's disease. <sup>[133]</sup>

### How do they work?

Some scientists think that part of the damage that happens to the brain in Alzheimer's disease involves inflammation or swelling. So, a treatment that reduces swelling should also reduce the amount of brain cells destroyed and improve symptoms. There is also some evidence to show that people who have taken NSAIDs for a long time may be less likely to get dementia. <sup>[140]</sup>

## Can they be harmful?

People who take NSAIDs regularly can get stomach problems, such as **ulcers**. Stomach problems are more likely to happen to older people or people who take high doses of NSAIDs.

In one study of people with Alzheimer's disease, 1 in 5 people had to stop taking indometacin because of side effects, mainly stomach problems. <sup>[134]</sup> In another study, half the people stopped taking diclofenac plus a medicine that helps prevent ulcers. <sup>[135]</sup> And in a third study, about 1 in 7 people taking rofecoxib or naproxen said they felt tired or dizzy, or they got **high blood pressure**. <sup>[136]</sup>

Taking an NSAID regularly for a long time can increase your risk of a heart attack or a stroke. People who have heart problems shouldn't take diclofenac. Advice for doctors says people should take the lowest dose of these drugs that works for them. And people shouldn't take an NSAID for longer than they need to. This safety advice doesn't apply to aspirin.

## How good is the research on NSAIDs?

There hasn't been much good research on nonsteroidal anti-inflammatory drugs (NSAIDs) for dementia. We found seven studies as well as a summary of research (a **systematic review**). <sup>[134]</sup> <sup>[135]</sup> <sup>[136]</sup> <sup>[137]</sup> <sup>[138]</sup> <sup>[139]</sup> <sup>[133]</sup> The research so far suggests that NSAIDs don't help.

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## Quetiapine

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[How good is the research on quetiapine?](#)

This information is for people with dementia and their carers. It tells you about quetiapine (Seroquel), a treatment that is sometimes used for dementia. It's based on the best and most up-to-date research.

## Does it work?

We're not certain. There's some evidence to show that quetiapine doesn't help people with dementia who are restless and agitated. And it might make other symptoms worse. But we need to see more research before we can know for certain.

## What is it?

Quetiapine is an **antipsychotic** drug. Antipsychotics are normally used to treat people who have serious mental health problems, like schizophrenia.

# Dementia

Quetiapine comes as tablets. The brand name is Seroquel.

## How can it help?

There's no good evidence that quetiapine can help people who have dementia. One study has found that quetiapine doesn't help people with dementia with the symptoms of restlessness and agitation. Also, it made other symptoms of dementia worse. <sup>[141]</sup>

## How does it work?

Quetiapine works by blocking the action of dopamine. Dopamine is a chemical in the brain that helps electrical signals travel between brain cells (a **neurotransmitter**).

Symptoms such as delusions (believing things that couldn't be true), aggression, and violence may happen because there is too much dopamine in the brain. Lowering the amount of dopamine may help these symptoms.

## Can it be harmful?

Antipsychotics can have dangerous side effects when they're used to treat older people with dementia. People taking these drugs run a higher risk of serious heart problems or a stroke. Antipsychotics can also cause unpleasant but less dangerous problems, like muscle twitches.

Doctors in the UK are advised not to prescribe antipsychotic drugs for people with dementia. <sup>[53]</sup>

All antipsychotic drugs can increase the risk of a **stroke** when they're used to treat older people with dementia. <sup>[81]</sup> There's a lower risk with older antipsychotics, like haloperidol, than with the newer ones, which include quetiapine and [risperidone](#).

Another study suggested that the antipsychotic drugs haloperidol (brand name Haldol), olanzapine (brand name Zyprexa), and risperidone (Risperdal) were linked to a rise in the chances of people with dementia dying shortly after starting to take them. But quetiapine did not show this increased risk. <sup>[82]</sup>

If you're caring for someone with dementia and their doctor recommends an antipsychotic drug, ask about the risks, and what the benefits of treatment might be.

One study has found that quetiapine can make some of the symptoms of dementia worse. <sup>[141]</sup> The patients in this study who were given quetiapine were more likely to score worse in tests of memory and thinking than those given a dummy treatment (called a **placebo**).

Common side effects reported by people taking quetiapine include:

- Constipation
- Drowsiness

# Dementia

- Heart palpitations
- Indigestion.

A big problem with older antipsychotic drugs, such as haloperidol, is that they can give you muscle problems. Some people get stiff or shaking muscles, or unusual movements of their face. These problems are less common with newer antipsychotic drugs like quetiapine. <sup>[105]</sup>

## How good is the research on quetiapine?

The evidence on using quetiapine for dementia isn't very good. In one good-quality study, nearly 100 patients with dementia were split into three groups. One group was given quetiapine, one group was given a dummy treatment (a placebo) and the other group was given another treatment that is sometimes used to treat Alzheimer's. The study found that quetiapine didn't help people feel less agitated or less restless. In fact, quetiapine seemed to make other symptoms of dementia worse. <sup>[142]</sup>

We need to see more research before we can know for certain that quetiapine doesn't work.

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## Reminiscence therapy

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[How good is the research on reminiscence therapy?](#)

This information is for people with dementia and their carers. It tells you about reminiscence therapy, a treatment that is sometimes used for dementia. It's based on the best and most up-to-date research.

### Does it help?

We don't know. There is some evidence to show that reminiscence therapy helps people with dementia. But we need to see a lot more before we can know for certain that it helps.

### What is it?

In reminiscence therapy, people are encouraged to remember things that happened in their life. Some people do this silently and alone. But usually they talk to someone or join special groups that meet regularly.

Reminiscence workers may use music, photographs, or other items to remind people about earlier days. For example, they might play music from the 1930s and show photographs of famous singers of the time, to start the memories flowing.

## How can it help?

Some small studies show that reminiscence therapy can help people with their memory and thinking. But it doesn't seem to help people who get upset easily to feel less agitated. <sup>[143]</sup>

A study looking only at having reminiscence therapy in groups found that it didn't seem to help much and was stressful for the carers. <sup>[144]</sup>

## How does it work?

The effort of remembering past events may help people's memory. And reminiscence therapy may also help people who have symptoms like being restless, easily upset, or aggressive by giving them something else to think about.

## Can it be harmful?

There's no evidence that reminiscence therapy can be harmful. <sup>[143]</sup>

## How good is the research on reminiscence therapy?

There's not much research to show that reminiscence therapy works. We found one summary of research (called a **systematic review**) that looked at the results from four small studies involving more than 100 people with dementia. It found that those people given reminiscence therapy were more likely to do better in tests on memory and thinking. But the therapy didn't help people who get upset easily or agitated. <sup>[145]</sup>

A more recent study of nearly 500 people with dementia looked at having reminiscence therapy in groups. It found that group therapy didn't seem to help much and was stressful for the carers. <sup>[144]</sup>

More good-quality research is needed before we can say for certain whether reminiscence therapy works.

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## Selegiline

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[How good is the research on selegiline?](#)

This information is for people with dementia and their carers. It tells you about selegiline, a treatment that is sometimes used for dementia. It's based on the best and most up-to-date research.

## Does it work?

We don't know. Different studies say different things.

## What is it?

Selegiline is usually prescribed for Parkinson's disease. But in studies, doctors have given it to people with **Alzheimer's** to see if it can help. It's taken as a tablet. Its brand names are Eldepryl and Zelapar.

## How can it help?

Some people with Alzheimer's who take selegiline do better on memory tests. <sup>[146]</sup> But any improvements are likely to be small. And we don't know if selegiline helps after more than four months.

There aren't any studies of how selegiline affects people with **vascular dementia** or **Lewy body dementia**.

## How does it work?

Selegiline increases the amount of a chemical called **dopamine** in parts of the brain. Dopamine is a chemical messenger (or **neurotransmitter**). It helps signals travel between brain cells.

People with Alzheimer's disease have less dopamine in their brain than people who don't have the disease. <sup>[147]</sup> This is because the dopamine that their brain makes is broken down too quickly. Selegiline slows this process, allowing more dopamine to pass between cells. This means that the parts of the brain that control memory, thinking, and mood may work better. <sup>[147]</sup>

## Can it be harmful?

Most people who take selegiline don't have any side effects. But some may: <sup>[146]</sup>

- Feel anxious
- Be easily upset (agitated)
- Feel dizzy
- Feel sick
- Get indigestion.

These side effects are likely to be mild. Only about 1 in 30 people stop taking selegiline because of the side effects. <sup>[146]</sup>

## How good is the research on selegiline?

The evidence for selegiline is quite good. But most of the studies we found were small and different studies measured their results in different ways. This makes it difficult to get an overall picture of how good the treatment is.

We found one big summary (a [systematic review](#)) of all the good-quality research. <sup>[146]</sup> The review looked at 17 good-quality studies (called [randomised controlled trials](#)).

- People who took selegiline for two months to four months did slightly better on memory tests than those who took a dummy treatment ([placebo](#)) for comparison.
- But selegiline didn't seem to help people do more for themselves.

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## Sodium valproate

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[How good is the research on sodium valproate?](#)

This information is for people with dementia and their carers. It tells you about sodium valproate, a treatment that is sometimes used for dementia. It's based on the best and most up-to-date research.

### Does it work?

We don't know. Different studies say different things. We can't be sure whether sodium valproate is helpful for people with dementia.

### What is it?

Sodium valproate (also called divalproex sodium or valproic acid) is normally used to treat people who have [epilepsy](#). But some doctors have prescribed it for people with dementia.

It's one of a group of drugs that doctors call **anticonvulsants**. Its brand names are Epilim, Orlept, Depakote, and Convulex.

### How can it help?

We don't know if it can help. There isn't much good quality research about this treatment for dementia. One study found that sodium valproate didn't help people with symptoms like becoming upset or aggressive. <sup>[148]</sup>

## How does it work?

We don't know exactly how sodium valproate might work to improve symptoms like agitation and aggression. It may stop certain signals travelling through the brain. And it may stop cells in the brain being destroyed. <sup>[148]</sup>

## Can it be harmful?

People who take sodium valproate are about twice as likely to get some side effects as those who take a dummy pill (a placebo). <sup>[148]</sup> The most common side effects are:

- Feeling sleepy
- Feeling sick
- Vomiting
- Getting diarrhoea
- Getting infections in the bladder or the urinary tract (tube that carries urine out of the body).

## Self harm and suicide

There is a very small risk that taking sodium valproate might make you more likely to think about suicide or harming yourself. <sup>[77]</sup> If you are worried about any thoughts or feelings you have, see your doctor straight away.

## How good is the research on sodium valproate?

The research on sodium valproate for treating people with dementia isn't very good. Some of the studies were unreliable because lots of people dropped out. And others weren't very good quality. One study found that sodium valproate didn't help people with symptoms like becoming upset or aggressive. <sup>[148]</sup>

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## Trazodone

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[How good is the research on trazodone?](#)

This information is for people with dementia and their carers. It tells you about trazodone, a treatment that is sometimes used for dementia. It's based on the best and most up-to-date research.

## Does it work?

We're not sure. There's some evidence that trazodone might help some people with dementia who are aggressive, easily upset (agitated), and restless. But other research shows that trazodone doesn't help.

## What is it?

Trazodone is a drug that is normally used for treating depression. Its brand name is Desyrel.

## How can it help?

We're not certain that it can. In one small study, trazodone worked as well as a drug called [haloperidol](#), with about two-thirds of the people who took trazodone becoming less aggressive, agitated, and restless.<sup>[149]</sup> But in another study, trazodone worked no better than a dummy treatment (a [placebo](#)).<sup>[150]</sup>

## How does it work?

Doctors aren't sure why trazodone should help with problems such as restlessness, irritability, shouting, swearing, pacing, and wandering. Trazodone increases the amount of a chemical called [serotonin](#) in the brain. This may help these symptoms.

Trazodone can make people feel drowsy. This also means people feel less aggressive, restless, and agitated.

## Can it be harmful?

Trazodone can cause a slow heartbeat and made you feel dizzy when you stand up from sitting. But side effects from taking trazodone are not common and not usually serious.<sup>[150]</sup> This is one of the reasons why trazodone is often given to people who have [Alzheimer's disease](#) or other kinds of dementia.

## How good is the research on trazodone?

We didn't find any good evidence that trazodone helps people with dementia become less aggressive, restless, or easily upset (agitated).

Two studies looked at people with [Alzheimer's disease](#).<sup>[149]</sup> <sup>[150]</sup> One of them also included people with [vascular dementia](#) or both Alzheimer's and vascular dementia (mixed dementia).<sup>[150]</sup>

Trazodone, a treatment called [haloperidol](#) and a dummy treatment (a [placebo](#)) all worked about the same for helping people become less agitated. But these studies looked at only a small number of people. Bigger studies are needed to see if trazodone can really help people with dementia.

## Hormone replacement therapy (HRT)

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[How good is the research on hormone replacement therapy \(HRT\)?](#)

This information is for people with dementia and their carers. It tells you about HRT, a treatment that's been tried for dementia. It's based on the best and most up-to-date research.

### Does it work?

No. There's no evidence that taking hormone replacement therapy (HRT) can help women with dementia to remember things better and think more clearly. And taking HRT can increase your risk of some other conditions, including breast cancer and heart disease.

### What is it?

Many women take hormone replacement therapy when they reach the menopause. HRT includes a hormone called **oestrogen**. Oestrogen is one of a group of hormones that control a woman's reproductive system (the parts of the body that enable a woman to get pregnant and give birth).

Women's bodies make less oestrogen when they reach the menopause. So, many women take HRT to restore some of the oestrogen they've lost.

If you would like to read more about the different kinds of hormone replacement therapy, see [HRT](#) or [What treatments work for the menopause?](#)

Some studies have found that women who take HRT are less likely to get dementia.<sup>[151]</sup> Out of nearly 6,000 women studied, 15 in 100 taking HRT got dementia compared with 21 in 100 not taking it.

For this reason, doctors started looking at whether women should take HRT to reduce the symptoms of dementia. However, there is no evidence that HRT can help in this way. Doctors think that there may be something else about women who take HRT that protects them against dementia. For example, something in their lifestyle, such as taking exercise, could help keep them from getting dementia.

### How can it help?

There's no evidence that taking HRT can help improve symptoms for women with dementia.<sup>[5]</sup> And it could cause serious side effects (see below).

### How does it work?

In theory, researchers thought HRT might:<sup>[152]</sup>

## Dementia

- Improve blood flow in the brain by widening blood vessels
- Increase the amount of chemical messengers in the brain, helping signals travel through the brain
- Help keep brain cells alive in a part of the brain that's linked with memory and problem solving
- Prevent amyloid plaques. (These small lumps in the brain are one of the telltale signs of [Alzheimer's disease](#) .) <sup>[153]</sup>

But studies haven't shown that HRT improves memory and thinking for women with dementia.

### Can it be harmful?

Yes. There are several serious risks with taking HRT.

One large study on HRT was stopped early because researchers found the risks of taking HRT, especially the risk of breast cancer, outweighed the benefits. <sup>[152]</sup>

HRT can also increase the risk of heart disease, [blood clots](#) , and [strokes](#) .

To learn more, see [HRT in our section on the menopause](#) .

### How good is the research on hormone replacement therapy (HRT)?

There is no good evidence that hormone replacement therapy (HRT) can improve symptoms for women with dementia.

We found one big summary of the research (called a [systematic review](#) ). <sup>[154]</sup> This summary included five studies (called [randomised controlled trials](#) ). But many of these studies were small and didn't last long (some lasted just seven weeks).

A total of 210 women took part in these studies. Half the women took HRT and half took a dummy treatment (a [placebo](#) ). Overall, women who took HRT did no better on memory tests than women who took the dummy treatment.

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## Exercise

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[How good is the research on exercise?](#)

# Dementia

This information is for people with dementia and their carers. It tells you about exercise, a treatment that's been tried for dementia. It's based on the best and most up-to-date research.

## Does it work?

We're not sure. There isn't much research on exercise for people with dementia. Some suggests that exercise may help to improve mood, but has no effect on feelings of depression or the general level of symptoms. These include symptoms that affect appetite, sleep, aggression, and irritability.

## What is it?

We know that taking regular exercise can help protect people against getting dementia, although we're not sure why this works. Doctors have been looking to see whether physical exercise can be helpful for people who already have dementia.

Many people with dementia find it hard to move, so they are restricted in the amount of exercise they can do. Some care homes and nursing homes provide exercise therapy, to keep people as mobile as possible. The types of programme depend on the abilities of the people taking part.

## How can it help?

There's not yet enough evidence to say for certain whether exercise helps with the symptoms of dementia. But findings from studies so far are encouraging. One large review of the research found that people with dementia who take part in exercise programmes may have improvements in their thinking abilities and be better able to do some daily tasks.<sup>[155]</sup> The review did not find that exercise helped with depression or difficult behaviours.

## How does it work?

We're not certain. We do know that taking regular exercise can help protect people against getting dementia, although it's not clear why.

## Can it be harmful?

There is not much information about the harms of exercise in people who have dementia. One study found no difference in the number of falls, broken bones, or deaths between those who took part in an exercise programme and those who did not. But this study did find that people who did exercise were more likely to be admitted to hospital.<sup>[156]</sup>

## How good is the research on exercise?

We looked at a large review of the research (a [systematic review](#)).<sup>[155]</sup> It included 16 good-quality studies ( [randomised controlled trials](#) ) with 937 people with dementia.

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The review found that taking part in a regular exercise programme might improve people's thinking abilities and how well they do some daily tasks. However, there were lots of differences among the studies. For example, they looked at people with different types of dementia and at a variety of exercise programmes. This makes it difficult to pool their findings and come to reliable conclusions. So we need more research to confirm that exercise is helpful.

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## Person-centred care

In this section

We haven't examined the evidence for person-centred care in as much detail as for the other treatments we cover (for more information, see Our method). But we wanted to include some information because you may be interested in it.

Person-centred care is a type of care provided in some care homes and nursing homes. Staff learn to think of residents as individuals, find out about their backgrounds and find ways of communicating better so they can understand what they want. They plan residents' care around their own preferences, and consider their social and emotional needs as well as their physical needs.

The idea is that by designing care around individuals, instead of around a timetable that just ensures basic needs are met, people will feel happier and be less likely to get upset. Getting upset easily is a common symptom of dementia, and can be hard for carers to deal with.

There hasn't been much research into different models of care for people with dementia. But one study suggests person-centred care may reduce the numbers of occasions when people with dementia show signs of distress, such as shouting, pacing around, or crying.

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## Omega 3 fish oil

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[How good is the research on omega 3 fish oil?](#)

This information is for people with dementia and their carers. It tells you about omega 3 fish oil, a treatment that has been tried for dementia. It's based on the best and most up-to-date research.

### Does it work?

We don't know. There hasn't been much research on fish oil as a treatment for dementia. The little that has been done suggests that fish oil doesn't work, but we can't know for sure without more research.

## What is it?

Fish such as trout, mackerel, sardines, and salmon have a lot of oil in them. You can get oil from these fish as capsules. Fish oil contains substances called omega-3 fatty acids.

You can buy fish oil capsules over the counter from pharmacies, health food shops, or supermarkets.

## How can it help?

There's not enough research yet to say whether fish oil can help people with dementia. So far, studies have found no difference in symptoms between people who took fish oil and people who took a dummy treatment (a placebo).<sup>[158]</sup>

## How does it work?

It's not clear whether fish oil does work for people with dementia. We know that omega 3 fish oils can change the balance of some fats in the blood. They can also reduce inflammation. If fish oil does turn out to work for people with dementia, it may be because of one of these effects.<sup>[159]</sup>

## Can it be harmful?

In studies looking at people with dementia, fish oil was a safe treatment. People who took it didn't get any serious problems. But some people got diarrhoea, or pain when they were eating.<sup>[159]</sup>

Other studies looking at fish oil supplements have found that they can cause wind, bad breath, and an unpleasant fishy taste in the mouth.<sup>[160]</sup>

## How good is the research on omega 3 fish oil?

There is very little research on fish oil as a treatment for dementia.

We found one good-quality study (a randomised controlled trial). In the trial, 174 people with mild to moderate Alzheimer's disease were given either omega 3 fish oil or a dummy treatment (a placebo) for six months. There was no difference in the symptoms of dementia between the people who got fish oil and people who got the placebo.

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## Statins

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# Dementia

This information is for people with dementia and their carers. It tells you about statins, a treatment that has been tried for dementia. It's based on the best and most up-to-date research.

## Do they work?

We don't know. There hasn't been enough research to know if statins help people with dementia.

## What are they?

Statins are a group of drugs that can reduce your cholesterol level.

There are lots of different statins available. Some of the main ones (with brand names) are:

- atorvastatin (Lipitor)
- fluvastatin (Lescol)
- rosuvastatin (Crestor)
- simvastatin (Zocor, Simzal).

Most of these drugs need to be prescribed by a doctor.

## How can they help?

There isn't enough research to know whether statins help people with dementia. One review of several studies, which looked at more than 700 people, found that statins didn't help with dementia symptoms. <sup>[161]</sup>

## How do they work?

It is not clear whether statins work for dementia. If they do, it may be that reducing cholesterol also reduces levels of the protein in the brain that causes Alzheimer's disease. Or statins may work by reducing inflammation. <sup>[162]</sup>

## Can they be harmful?

The review we found said that side effects of statins were rare. <sup>[161]</sup> Generally, statins are a safe treatment, although there are rare cases of muscle damage.

## How good is the research on statins?

We found a large summary of the evidence, called a systematic review. <sup>[161]</sup> The review looked at seven smaller studies that altogether included more than 700 people. It found

that statins didn't help dementia symptoms. The researchers said that there needs to be more research into whether statins can help people with dementia.

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### Antidepressants

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[How good is the research on antidepressants?](#)

This information is for people with dementia and their carers. It tells you about antidepressants, a treatment for people with dementia who are also depressed. It's based on the best and most up-to-date research.

#### Do they work?

We don't know. Most studies of antidepressants in people with dementia have been short.<sup>[163]</sup> Researchers think that antidepressants can take quite a long time to start working. So there would need to be good long-term studies before we could say if they help with dementia.

#### What are they?

Antidepressants are drugs that are usually used to help with depression.

Some antidepressants that have been tried as a treatment for people with dementia are:

- fluoxetine (Prozac)
- imipramine
- sertraline (Lustral)
- clomipramine (Anafril).

#### How can they help?

Studies have looked at whether antidepressants can improve mood in people with dementia and depression. But so far the evidence has found that people with dementia who take antidepressants do no better than people taking a dummy (placebo) treatment.<sup>[163] [164] [165]</sup>

A summary of the research (a **systematic review**) found that the antidepressants sertraline (brand name Lustral), citalopram (brand name Cipramil), fluoxetine (brand name Prozac), and clomipramine (brand name Anafril) didn't help symptoms compared

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with a dummy ( placebo ) drug.<sup>[163]</sup> Two smaller studies of sertraline also found that it didn't help any more than placebo.<sup>[164] [165]</sup>

## How do they work?

Antidepressants affect chemicals in the brain called neurotransmitters. These chemicals help messages travel from one nerve to another. Changing the balance of these chemicals in your brain may have effects on mood and the way you think.

## Can they be harmful?

All antidepressants have side effects. The side effects vary from one drug to another.

Common problems are a dry mouth, feeling sick, getting an upset stomach, gaining weight, losing weight, or having sexual problems.

One study in people with dementia found that people who took sertraline were about twice as likely as people who took a dummy drug (placebo) to get diarrhoea, dry mouth, or dizziness.<sup>[164]</sup>

Medicines often have side effects for frail older people. In one study, researchers looked at how long people in nursing homes lived after being prescribed drugs that affect the nervous system, such as antipsychotics, antidepressants and benzodiazepines. They found that all these drugs raise the risk of death in these groups of people. However, we can't be sure the deaths were caused by the drugs. It may simply be the case that people who needed these drugs were already nearer the end of their lives, compared with people who didn't need them.<sup>[127]</sup>

## Self-harm and suicide

Research has shown an increased risk of suicidal thoughts in people taking antidepressants, but this appears to be only for people under the age of 24.<sup>[77]</sup> Nevertheless, doctors and carers are advised to keep a careful check on anyone taking antidepressants for signs of suicidal thoughts. If you're taking an antidepressant and are worried about any thoughts or feelings you have, see your doctor or go to hospital straight away.

## How good is the research on antidepressants?

There isn't much research on antidepressants as a treatment for dementia. We found one study that collected together the findings from several small studies (this type of research is called a systematic review ). The studies in the review lasted from six to 12 weeks.<sup>[163]</sup>

The review found that antidepressants didn't help much compared with a dummy drug ( placebo ). About 53 in 100 people who took antidepressants felt less depressed, compared with about 39 in 100 people who took a placebo.

## Cognitive behaviour therapy

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[How good is the research on cognitive behaviour therapy?](#)

This information is for people with dementia and their carers. It tells you about cognitive behaviour therapy, a treatment that's been tried for dementia. It's based on the best and most up-to-date research.

### Does it work?

We don't really know. Cognitive behaviour therapy (CBT) may help people with dementia who acting aggressively or who have behaviour problems because of their condition. But better research needs to be done to know for sure.

### What is it?

CBT is a kind of talking treatment ( psychotherapy ). During CBT, you talk to a therapist about your problems.

CBT is based on the idea that the thoughts you have and the assumptions you make about life can change the way you behave. One aim of CBT is to change people's way of thinking to help them look at things more positively.

CBT also looks at how you react to problems, and aims to help you behave in helpful, rather than unhelpful ways.

### How can it help?

For conditions like depression, CBT is a successful treatment that can make you feel better. We don't know so much about the benefits of CBT for people with dementia, because not much research has been done. But it seems that CBT can help people with dementia be less aggressive, behave in less difficult ways, and sleep better.<sup>[34]</sup> But we need more research to be sure.

### How does it work?

CBT aims to change the way you think and behave. So, if the way you think is making you depressed, or angry, or if you respond by behaving in ways that are difficult for others to cope with, it should help. It aims to break vicious circles that can result from feeling bad, behaving in unhelpful ways (getting unnecessarily angry, for example), and then feeling worse.

## Can it be harmful?

The research didn't find any particular side effects. But it did say that people with dementia might find it difficult to take part in CBT, and so might have feelings of failure and humiliation. <sup>[34]</sup>

## How good is the research on cognitive behaviour therapy?

The research on cognitive behaviour therapy (CBT) for dementia isn't very good. We found one review of six studies. <sup>[34]</sup> Two of the studies said people with dementia who had CBT were less aggressive. But a third study found that people with dementia who had CBT were just as likely to get easily upset as those who didn't.

In two more studies, staff at care homes said that people with dementia who had CBT behaved in less difficult ways, but another study found no changes in behaviour.

One other small study found that a CBT-type approach helped people with dementia sleep better.

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## Cognitive stimulation

In this section

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This information is for people with dementia and their carers. It tells you about cognitive stimulation and cognitive training, a treatment that's been tried for dementia. It's based on the best and most up-to-date research.

### Does it work?

We don't know. Cognitive stimulation might help people with mild to moderate memory problems, but there hasn't been enough good research on this treatment.

### What is it?

Cognitive stimulation is a treatment aimed at improving symptoms of dementia using pictures, sounds, games (including word games), and conversation. The idea is that stimulating someone's mind and memory with ideas and images will help them make sense of what is going on around them, and help them with day-to-day life.

People often have this treatment in small groups a couple of times a week. However, family members are sometimes also trained to provide this treatment one-to-one.

You might also hear cognitive stimulation called cognitive training.

## How can it help?

Studies suggest that cognitive stimulation may help people with mild to moderate dementia think more clearly, and improve their memory symptoms. It might also help them to communicate and interact better with other people.<sup>[166]</sup> However, some of the research on this isn't very good-quality. We need more studies to know for certain how well it works.

## How does it work?

Cognitive stimulation is a kind of talking therapy.<sup>[167]</sup> With cognitive stimulation, a therapist talks with you, one to one. You discuss pictures, objects, and ideas, and play word games.

The idea is that the therapy helps people with dementia to make sense of their thoughts and to think more clearly. It might also help with memory symptoms.

## Can it be harmful?

The studies we looked at didn't say whether cognitive stimulation did any harm to people, but it seems unlikely.

## How good is the research on cognitive stimulation?

We found one summary of the research (a **systematic review**), which included 15 studies with more than 700 people who had mild to moderate dementia.<sup>[166]</sup> Those who had cognitive stimulation did better on tests measuring their thinking skills and memory, compared with those who did not have this treatment. They also had improvements in how they communicated and interacted with other people. However, many of the studies had problems affecting their quality, so we need more research to confirm these results.

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## Further informations:

### Glossary:

#### neurotransmitters

Neurotransmitters are chemicals that help to carry messages between nerve cells. Serotonin, dopamine, and norepinephrine (noradrenaline) are all neurotransmitters.

#### Alzheimer's disease

People who have Alzheimer's disease slowly lose their memory and ability to think clearly. As the disease gets worse, they get more confused and start acting differently. Several changes happen in the brain that stop it working properly. Small lumps called amyloid plaques grow in the parts of the brain used for memory and thinking. And bundles of twisted threads called 'neurofibrillary tangles' form inside brain cells. These stop brain cells communicating with each other, and they can cause cells to die. Also, in Alzheimer's disease, the brain does not have enough chemical messengers (neurotransmitters), and holes or gaps appear where brain cells have died.

#### Lewy body dementia

People with Lewy body dementia slowly lose their memory and their ability to think clearly. Most people also get symptoms of Parkinson's disease. This means they may move slowly and their movements may become stiff and rigid.

#### vascular dementia

This type of dementia happens when blood vessels near your brain get damaged, so your brain doesn't get enough blood. Some of the cells in your brain die, which causes symptoms such as confusion and memory problems. Vascular dementia can happen suddenly if you have a stroke. Or it can come on gradually if you have a series of little strokes (this is called multi-infarct dementia).

# Dementia

## high blood pressure

Your blood pressure is considered to be high when it is above the accepted normal range. The usual limit for normal blood pressure is 140/90. If either the first (systolic) number is above 140 or the lower (diastolic) number is above 90, a person is considered to have high blood pressure. Doctors sometimes call high blood pressure 'hypertension'.

## stroke

You have a stroke when the blood supply to a part of your brain is cut off. This damages your brain and can cause symptoms like weakness or numbness on one side of your body. You may also find it hard to speak if you've had a stroke.

## menopause

When a woman stops having periods, it is called the menopause. This usually happens around the age of 50.

## hormone replacement therapy

Hormone replacement therapy (also called HRT) is given to women after the menopause to replace the oestrogen (the main female hormone) that is no longer made by their ovaries. It can be given either as oestrogen alone or as a combination of oestrogen and progesterone (another female hormone). It is useful to treat menopausal symptoms such as hot flushes, and to prevent brittle bone disease (osteoporosis). But there are concerns that it may increase the risk of breast cancer, heart attacks and strokes.

## genes

Your genes are the parts of your cells that contain instructions for how your body works. Genes are found on chromosomes, structures that sit in the nucleus at the middle of each of your cells. You have 23 pairs of chromosomes in your normal cells, each of which has thousands of genes. You get one set of chromosomes, and all of the genes that are on them, from each of your parents.

## Down's syndrome

Down's syndrome affects some people from birth. It causes learning difficulties, and it also makes some physical problems more likely. It is caused by an extra chromosome. Chromosomes are found in all our cells, and contain genes, which tell cells how to grow and behave.

## high cholesterol

If you've been told that you have high cholesterol it usually means that your total cholesterol level is 5mmol/l or higher. But doctors also look at the amount of good (HDL) and bad (LDL) cholesterol you have in your blood. Having high levels of bad cholesterol can make it more likely that you'll get certain diseases in your heart and arteries.

## diabetes

Diabetes is a condition that causes too much sugar (glucose) to circulate in the blood. It happens when the body stops making a hormone called insulin (type 1 diabetes) or when insulin stops working (type 2 diabetes).

## obesity

If your body stores more energy than you need, this can make you overweight. The excess energy is stored in your fat cells. If your weight goes above a certain level, doctors call this obesity. Obesity is considered a medical condition. The excess weight can be a strain on your bones and joints. And if you are obese, you're more likely to get other diseases. Doctors have developed a scale for telling how much excess weight you have. This measure, called the body mass index (BMI), depends on your height.

## atrial fibrillation

Atrial fibrillation happens when your heart beats in an uneven or irregular way. Normally the beating of your heart is controlled by electrical signals. The signals make the upper parts of your heart (the atria) squeeze blood into the lower parts, which then squeeze blood out into your blood vessels. If you have atrial fibrillation, the electrical signal doesn't work well, so the upper parts of your heart don't beat at the right time.

## HIV

HIV stands for human immunodeficiency virus. It's the virus that causes AIDS. It makes you ill by damaging cells called CD4 cells. Your body needs these cells to fight infections. You can get HIV by sharing needles for injecting drugs, or by having sex without a condom with someone who has the virus.

## depression

Depression is a mental illness in which your mood is low and you feel sad most of the time. It can range from a mild illness through to a severe one in which you lose interest in life and may be suicidal.

## schizophrenia

Schizophrenia is a mental illness that causes delusions and hallucinations.

## Huntington's disease

This disease of the brain causes uncontrolled movements, emotional problems, and problems with walking, talking and thinking. It is inherited (passed on in your genes). Symptoms don't usually start before people are in their 40s or 50s. There is no treatment.

## motor neurone disease

Motor neurone disease (MND for short) is the name given to a group of diseases that affect the nerve cells (neurones) that control muscles. People with these diseases can have trouble moving around, speaking, breathing and swallowing normally. Symptoms gradually get worse as a person's muscles weaken.

# Dementia

## multiple sclerosis

Multiple sclerosis (MS) is a disease that damages the walls of your nerves. No one knows for sure what causes it. If you have multiple sclerosis, you may lose feeling in certain parts of your body. You may also have trouble with your vision or problems controlling your movements.

## dementia advance directive

An advance directive for dementia is a legal document that you sign before the disease has made it difficult for you to think clearly and make decisions. It can include a living will, which says you prefer to be allowed to die by natural means and not be kept alive by artificial measures. It can also include a power of attorney, which identifies a person who will make decisions about your health care and finances.

## antidepressant

Antidepressants are medicines used to treat depression and sometimes other conditions. They work by changing the levels of chemicals in your brain called neurotransmitters. There are three main types of antidepressants, which work in different ways: selective serotonin reuptake inhibitors (SSRIs), monoamine oxidase inhibitors (MAOIs) and tricyclic antidepressants (TCAs).

## neurologist

A neurologist is a doctor who specialises in diseases that affect your brain and your nervous system.

## geriatrician

A geriatrician is a doctor who specialises in treating older people.

## psychiatrist

A psychiatrist is a doctor who specialises in psychiatry. Psychiatry is the branch of medicine that covers mental, emotional or behavioural problems.

## MRI scan

A magnetic resonance imaging (MRI) machine uses a magnetic field to create detailed pictures of the inside of your body.

## CT scan

A CT scan is a type of X-ray. It takes several detailed pictures of the inside of your body from different angles. CT stands for computed tomography. It is also called a CAT scan (computed axial tomography).

## inflammation

Inflammation is when your skin or some other part of your body becomes red, swollen, hot, and sore. Inflammation happens because your body is trying to protect you from germs, from something that's in your body and could harm you (like a splinter) or from things that cause allergies (these things are called allergens). Inflammation is one of the ways in which your body heals an infection or an injury.

## placebo

A placebo is a 'pretend' or dummy treatment that contains no active substances. A placebo is often given to half the people taking part in medical research trials, for comparison with the 'real' treatment. It is made to look and taste identical to the drug treatment being tested, so that people in the studies do not know if they are getting the placebo or the 'real' treatment. Researchers often talk about the 'placebo effect'. This is where patients feel better after having a placebo treatment because they expect to feel better. Tests may indicate that they actually are better. In the same way, people can also get side effects after having a placebo treatment. Drug treatments can also have a 'placebo effect'. This is why, to get a true picture of how well a drug works, it is important to compare it against a placebo treatment.

## enzymes

Enzymes are chemicals in your body. They have lots of different functions, including playing a part in helping to digest food and starting other chemical reactions that keep the body working.

## diarrhoea

Diarrhoea is when you have loose, watery stools and you need to go to the toilet far more often than usual. Doctors say you have diarrhoea if you need to go to the toilet more than three times a day.

## randomised controlled trials

Randomised controlled trials are medical studies designed to test whether a treatment works. Patients are split into groups. One group is given the treatment being tested (for example, an antidepressant drug) while another group (called the comparison or control group) is given an alternative treatment. This could be a different type of drug or a dummy treatment (a placebo). Researchers then compare the effects of the different treatments.

## systematic reviews

A systematic review is a thorough look through published research on a particular topic. Only studies that have been carried out to a high standard are included. A systematic review may or may not include a meta-analysis, which is when the results from individual studies are put together.

## randomised controlled trials

# Dementia

Randomised controlled trials are medical studies designed to test whether a treatment works. Patients are split into groups. One group is given the treatment being tested (for example, an antidepressant drug) while another group (called the comparison or control group) is given an alternative treatment. This could be a different type of drug or a dummy treatment (a placebo). Researchers then compare the effects of the different treatments.

## mini-stroke

When the supply of blood to a part of your brain is blocked off for a short time, but not long enough to cause permanent damage, it's called a mini-stroke. Doctors call it a transient ischaemic attack (or TIA for short). A mini-stroke can make you lose control of one side of your body, or you may lose the sight in one eye. But these problems go away within 24 hours.

## serotonin

Serotonin is a neurotransmitter, which is a chemical that helps to send information from a nerve cell to other cells. It is thought to play a role in learning, sleep and control of mood.

## dopamine

Dopamine is a neurotransmitter, which is a chemical that helps messages pass between brain cells and other cells. Dopamine plays a role in your mood, and your physical movements.

## blood clot

A blood clot forms when the cells in blood clump together. Sometimes this happens to stop you from bleeding if you've had an injury. But it can also happen on the inside of your blood vessels, even when you haven't had an injury. A blood clot inside a blood vessel is called a thrombus.

## NSAIDs

NSAID stands for nonsteroidal anti-inflammatory drug. NSAIDs help with pain, inflammation and fever. They are called 'nonsteroidal' because they don't contain any steroids. Aspirin and ibuprofen are both NSAIDs.

## arthritis

Arthritis is when your joints become inflamed, making them stiff and painful. There are different kinds of arthritis. Osteoarthritis is the most common type. It happens when the cartilage at the end of your bones becomes damaged and then starts to grow abnormally. Rheumatoid arthritis happens because your immune system attacks the lining of your joints.

## ulcer

An ulcer is an open sore. Ulcers can happen in many parts of your body, such as in your stomach, and the skin of your legs, mouth, or genitals.

## bladder

Your bladder is the hollow organ at the top of your pelvis that stores urine. It is similar to a balloon, only with stronger walls. It fills up with urine until you go to the toilet.

## hormones

Hormones are chemicals that are made in certain parts of the body. They travel through the bloodstream and have an effect on other parts of the body. For example, the female sex hormone oestrogen is made in a woman's ovaries. Oestrogen has many different effects on a woman's body. It makes the breasts grow at puberty and helps control periods. It is also needed to get pregnant.

## psychotherapy

Psychotherapy is a talking treatment. It is given by trained therapists (such as a psychiatrists, psychologists or social workers). Psychotherapy usually consists of regular sessions (often weekly) between the therapist and the patient. There are many types of psychotherapy, including cognitive behavioural therapy and interpersonal therapy.

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