



Alzheimer's
Research
UK

Treatments for dementia



Patient Information Forum

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Introduction

This information is for anyone who wants to know more about treatments currently available for dementia. This might include people with dementia, their carers, friends, and family.

This booklet gives an overview of the treatments currently available for the different types of dementia, including both drug and non-drug treatments. It covers treatments for Alzheimer's disease, vascular dementia, dementia with Lewy bodies (DLB) and frontotemporal dementia (FTD).

The information in this booklet does not replace the advice that doctors, pharmacists, or nurses may provide, but gives you information that we hope you will find useful.

The booklet was updated in April 2022 and is due to be reviewed in April 2024. It was written by Alzheimer's Research UK's Information Services team with input from lay and expert reviewers. Please get in touch using the contact details below if you'd like a version with references or in a different format.

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

What is dementia?

The word dementia is used to describe a group of symptoms – these include memory loss, confusion, communication problems and difficulty with day-to-day tasks.

Dementia is caused by different diseases that affect how our brains work. Alzheimer's disease is the most common cause. Other causes of dementia include vascular dementia, dementia with Lewy bodies and frontotemporal dementia.

When someone develops a disease that causes dementia, their brain cells become damaged and stop working properly. This damage happens inside specific areas of the brain, which can affect how we think, behave, remember, and communicate.

For more information about dementia, please ask for our free booklet '**All about dementia**' using the contact details on the back page.



Drug treatments for dementia

If you have been diagnosed with a type of dementia, there are several drugs that might help. The treatment will differ depending on the type of dementia you have. If you are unsure what type of dementia you have you can ask your doctor.

Following a diagnosis you can talk with your doctor about the treatments available and together you can decide which ones might be best for you. You might also like a carer or member of your family to be involved in these decisions.

If you are prescribed a drug for dementia, the treatment may be started by your own doctor or by a specialist doctor. Specialist doctors who see people with dementia include psychiatrists, geriatricians, and neurologists. The ongoing monitoring of your treatment will be done by your own doctor.

Throughout this booklet, the generic or common name of drug treatments are used, like donepezil, and we give the brand names in brackets, for example (Aricept).



The NHS 111 service can give you medical advice if you cannot reach your doctor.
Telephone: 111 - 24 hours a day.

Treatments for Alzheimer's

Alzheimer's disease is the most common type of dementia and involves the build-up of two proteins in the brain, called amyloid and tau. This damages brain cells and leads to symptoms like memory loss, confusion, and changes in mood.

People with Alzheimer's disease might benefit from taking a cholinesterase inhibitor. This medication is used to treat the symptoms of Alzheimer's, but they do not slow down or cure the disease.

Cholinesterase inhibitors

There are three cholinesterase inhibitors available to treat Alzheimer's:

- **donepezil (Aricept)**
- **rivastigmine (Exelon)**
- **galantamine (Reminyl)**

This medication is given to people with mild to moderate Alzheimer's, and doctors will continue to prescribe one of these drugs as symptoms progress, so long as it is safe and suitable to do so.

How cholinesterase inhibitors work

In Alzheimer's disease, nerve cells become damaged and lose their ability to communicate. Cholinesterase inhibitors work by increasing the amount of a chemical called acetylcholine, which helps messages to travel around the brain. These messages help us to move, think, and remember. By increasing the communication between nerve cells cholinesterase inhibitors can reduce the symptoms of Alzheimer's, and improve a person's ability to carry out daily activities for a time.

These treatments are normally given as tablets or capsules, but they are available as a liquid form too. Donepezil is also available as a tablet that dissolves on the tongue. Rivastigmine is available in patches, where the drug is absorbed through the skin. All of these drugs work in a similar way. So far, research has not found a difference in how effective each drug is, but some people may respond better to one drug than another or have fewer side-effects. Your doctor will discuss the most suitable one for you.

Effects of cholinesterase inhibitors

People with Alzheimer's may find that their symptoms improve by taking a cholinesterase inhibitor. This could be improvement in thinking, memory, communication or with day-to-day activities. Others may find that their condition stays the same, or that their symptoms do not get worse as quickly as they would have expected. Some people may not notice any effect at all.

As these drugs don't stop Alzheimer's disease from damaging the brain, symptoms will continue to get worse over time. However, they can help some people to function better than they would do without the drug.

The most common side-effects of cholinesterase inhibitors are feeling or being sick, diarrhoea, having trouble sleeping, muscle cramps and tiredness. These effects are often mild and usually only temporary. Not everyone will experience side-effects. If you are worried about side-effects you can talk to your doctor.

Memantine

Memantine (Ebixa or Axura) is a drug prescribed to people with moderate or severe Alzheimer's disease, and for people with mild or moderate Alzheimer's if cholinesterase inhibitors are not suitable. Memantine is normally given as a tablet, but it is also available as a liquid. Your doctor will discuss the most suitable option for you. Like cholinesterase inhibitors, memantine does not slow down or cure the disease. However, it can help with some symptoms.

How memantine works

Memantine helps nerve cells in the brain communicate with each other. It does this by regulating a chemical called glutamate. In Alzheimer's disease this can allow brain cells to work more effectively for longer which helps to reduce the symptoms like memory loss and confusion for a while. This can help people to carry out daily activities and to function better than they did before they took the medication.

Effects of memantine

Some people taking memantine will benefit from it, others may not notice any effect at all. Some may find that their symptoms stay the same when they would have expected them to get worse. Some people experience side-effects when taking memantine, the most common are headaches, dizziness, drowsiness, and constipation. These are usually only temporary, and if you are concerned about them you can talk to your doctor.

Memantine is currently only recommended for people with Alzheimer's disease, and people with dementia with Lewy bodies if cholinesterase inhibitors are not effective. Research is underway to learn more about whether it might be beneficial for people with other types of dementia.

People with moderate or severe Alzheimer's disease are sometimes offered combination therapy, where a cholinesterase inhibitor and memantine are given together.



Treatments for other types of dementia

Dementia with Lewy bodies (DLB)

Dementia with Lewy bodies is caused by small round clumps of protein that build up inside nerve cells in the brain.

One of these proteins is called alpha-synuclein and the clumps it forms are called Lewy bodies. The protein clumps damage the way nerve cells work and communicate in areas of the brain that control our thinking, memory, vision, and movement. Cholinesterase inhibitors (details on page 6) may help to improve some of the symptoms of DLB, including thinking skills and visual hallucinations.

This means a doctor may prescribe the drug if you have been diagnosed with DLB. So far memantine (page 7) has only been shown to have small benefits for people with DLB, but it may be offered to those who can't be given a cholinesterase inhibitor.

Lewy bodies are also responsible for the damage that causes movement problems in Parkinson's disease. Levodopa, a drug used to treat Parkinson's, may also be prescribed if someone with DLB has movement problems. However there is a risk that levodopa may cause or worsen visual hallucinations. If this occurs, tell your doctor as soon as possible. Physiotherapy may also be prescribed for people with DLB to help with their movement problems.

Vascular dementia

Vascular dementia occurs when blood vessels (arteries) become damaged and blood flow to the brain is reduced.

This type of dementia can be caused by lots of different things and is linked to cardiovascular disease. Risk factors for vascular dementia include high cholesterol, high blood pressure, type 2 diabetes, stroke, and heart problems. People with these conditions may have an increased risk of developing vascular dementia.

Unfortunately, there are currently no specific treatments for vascular dementia to alleviate symptoms or to slow down the progression of the disease. However, a doctor may prescribe medication to treat any underlying risk factors that a person may have like high blood pressure or diabetes. This can help to reduce the risk of stroke and lessen further damage blood vessels in the brain. More research is needed to see if treating these conditions once someone has vascular dementia could slow its progression.

To help control and treat these underlying conditions, your doctor may support you to stop smoking, exercise regularly and to eat a healthy balanced diet. Research is still ongoing but following this advice may help to reduce your risk of developing further complications like stroke and type 2 diabetes. Vascular dementia can be caused by a stroke, so if someone has had one a doctor may also recommend physiotherapy, occupational therapy, or speech therapy to help improve someone's wellbeing and recovery.

Cholinesterase inhibitors and memantine (details on page 6) are not usually beneficial for people with vascular dementia. However, some people can be diagnosed with both Alzheimer's and vascular dementia, which is often called 'mixed dementia' and these treatments may be prescribed in such cases.

Frontotemporal dementia (FTD)

Frontotemporal dementia is a rare form of dementia, accounting for less than 5% of all dementia cases.

The disease is caused by damage to cells in areas of the brain called the frontal and temporal lobes. These areas control our personality, emotions, and behaviour, as well as our speech and understanding of language.

Unfortunately at the moment there are no drugs to treat frontotemporal dementia. Other drugs may help some symptoms of the disease; for example, an antidepressant may be considered if someone is struggling with mood symptoms. You can find more details about such treatments on page 12.

Some people with FTD can have physical symptoms such as problems swallowing or moving, which need careful management. Speech therapy, occupational therapy, or physiotherapy may be offered to help with these symptoms. You can ask your doctor about these treatments.

Non-drug treatments for dementia

There are several types of cognitive therapy that may benefit people with dementia. Cognitive skills are described as thinking skills like problem solving and learning. Cognition is a word used to describe gaining knowledge through our experiences, senses, and thoughts.

Cognitive therapy

Cognitive stimulation activities are designed to stimulate thinking skills using different experiences, learning and by stimulating the senses. They are often group-based and include games, with an emphasis on enjoyment. Cognitive stimulation can be provided by health or social care staff with appropriate training.

The benefits of cognitive stimulation for people with dementia could include improvement in memory, thinking skills and quality of life.

Other types of cognitive therapy may benefit people with dementia. These include reminiscence therapy, where past memories, events and experiences are discussed, usually with photographs and other familiar objects from the past.

Cognitive rehabilitation aims to improve how people manage everyday tasks by setting personal goals and finding ways to achieve them. The focus is on developing the person's strengths and helping them to overcome their individual challenges. You can talk to your doctor about a referral for cognitive therapy, they should be able to let you know of services local to you that can provide such treatments.

Herbal, 'alternative' or 'complementary'

It is best to be wary of 'herbal,' 'alternative,' or 'complementary' products that claim to benefit people with dementia, or to improve memory. There has been little high-quality research into these products, and some may not be safe for people with dementia. For example, despite anecdotal reports, there is currently no evidence from studies in people that coconut oil, ginkgo biloba or turmeric can benefit people with dementia.

The most important thing when considering taking an alternative therapy is to talk to your doctor or pharmacist. Some of these products might interact with your everyday medication, so the doctor needs to know about anything you might be taking. These products should never be taken as a substitute for prescribed medicines.



Exercise and physiotherapy

Exercise and physiotherapy can be beneficial for people with dementia. Staying active has many health benefits including reducing the risk of falls and stroke, increasing mobility, and improving mood. You doctor can talk about local services and make referrals to a physiotherapist if they feel it's appropriate.

Occupational therapy

Occupational therapy provides support to people whose health prevents them doing everyday activities. An occupational therapist can identify difficulties a person with dementia may have in everyday life, such as dressing or preparing food, and will work with the person to find practical solutions.

Speech and language therapy

Speech and language therapy can help people with aphasia, which can be a common symptom in vascular dementia and frontotemporal dementia. Aphasia causes problems with speaking, language, and swallowing. Talk to your doctor for a referral to a speech therapist if you experience these symptoms.



Treatments for other symptoms of dementia

Depression, anxiety, agitation, and aggression are symptoms that some people with dementia may experience. These symptoms are often experienced by people in the later stages of dementia, including those with Alzheimer's disease, vascular dementia, dementia with Lewy bodies and frontotemporal dementia

Depression

Depression can be common in all forms of dementia. Your doctor may consider recommending cognitive behavioural therapy (CBT). CBT provides an opportunity for people to talk about their worries and concerns with a specialist. It aims to help people develop different ways of thinking and behaving to overcome their symptoms.

There may also be other therapies offered in your local area that could help; these might include exercise or group activities such as music therapy which have been shown to be effective for some people to treat depression.

You may be offered an antidepressant drug, either as an alternative to CBT or in combination with it. There are different types, or classes, of antidepressant; some are not suitable for people with dementia. Your doctor will be able to advise you if an antidepressant could help and which type would be best.

Agitation, anxiety, and aggression

Some people with dementia experience agitation, aggression, delusions (negative or mistaken beliefs), anxiety, hallucinations, sleep disturbances and other behavioural symptoms. They are also known as neuropsychiatric symptoms or behavioural and psychological symptoms of dementia (BPSD).

These symptoms can be difficult for the person living with dementia and their loved ones, but there are some things that might help. A doctor should first try to identify the cause or trigger of aggression or agitation. A person's physical health may affect their behaviour – for example pain, being constipated or needing the toilet. Someone's surroundings can also affect their behaviour, for example poorly lit rooms or unfamiliar places, as well as their feelings towards certain situations.

Finding out if there are triggers that cause aggressive or agitated behaviour means it might be possible to remove, treat or avoid them. Mild behavioural symptoms can often be helped with adjustments to physical surroundings, reassurance, or changes to daily routine.

Possible triggers could include:



Undetected pain
or discomfort



Infections



Depression



Social situations



Noisy or
overwhelming
environments



Disruption to
routine

For more information and support with treatments for depression, agitation, anxiety, and aggression you can speak to **Dementia UK's Admiral Nurses** on **0800 888 6678** or **helpline@dementiauk.org**



Non-drug treatments

To help someone with depression, anxiety or agitation, a non-drug therapy may be offered. The type of therapy will depend on local availability and the individual's preference.

Types of therapy might include:

- aromatherapy
- massage
- music therapy or dancing
- multi-sensory stimulation
- animal-assisted therapy

Activities the person can engage with and enjoy might also help. These could include reminiscence therapy, spending time outside, and singing. A person's response to these therapies should be carefully monitored and the approach changed if needed. These therapies can be provided by a healthcare professional with appropriate training.

Some people with dementia may find one of these therapies helpful and there is some research that suggests they may be beneficial. However, the studies done so far have been small, so more research is needed.

Antipsychotic drugs

If non-drug treatments have not worked, and someone is very distressed they may be offered an antipsychotic drug.

These drugs should only be prescribed if there is severe distress or immediate risk of harm to the person themselves or others around them. While they can be helpful in certain circumstances, antipsychotics can also have serious side-effects so other methods to reduce agitation, anxiety and aggression should be tried first.

They should be prescribed for a short time only and anyone with dementia taking an antipsychotic drug should be closely and regularly monitored by a doctor. If you have any concerns about antipsychotics being used you can talk to your doctor.

Effects of antipsychotic drugs

There are several different antipsychotic drugs. One, called risperidone (Risperdal), is licensed to treat severe agitation, aggression, and behavioural changes in people with dementia. Short term treatment can help to reduce these symptoms.

On rare occasions, other antipsychotic drugs may be considered at a low dose if someone is extremely aggressive. Haloperidol (Haldol, Serenace) is another antipsychotic that might be considered for a short period (one week). Lorazepam (Ativan, Temesta), a type of drug called a benzodiazepine, is not an antipsychotic drug but may also be used in a similar way for a short time to help reduce very aggressive behaviour.

All antipsychotics can have serious side-effects. Long term use of antipsychotic drugs is associated with an increased risk of stroke and may worsen memory and thinking in people with Alzheimer's disease. For this reason, antipsychotics should not usually be used for longer than three months and the benefits of prescribing them need to be carefully weighed up against the risk of side-effects for each person.

Antipsychotics can be particularly dangerous for people with dementia with Lewy bodies and should only be prescribed in severe circumstances. They can cause symptoms to get worse and can lead to an increased risk of death. Different antipsychotic drugs have been used in the past to treat dementia symptoms, but they are not recommended or licensed for this. You can, and should, talk with your doctor about what type of medication is being prescribed and why.

Caring for someone with dementia

Accessing services and support can make a real and positive difference to someone with dementia and their family. Some services will be provided by local authorities and others can be arranged through your doctor.

For advice, you can contact your local social services department to find out what support is available near you. Following a diagnosis everyone with dementia is entitled to an assessment of their needs, and carers are also entitled to their own assessment.



The following organisations provide information, support, and care services to people affected by dementia as well as their families and carers.

The **Admiral Nurse Dementia Helpline** offers practical advice and emotional support to people affected by dementia on **0800 888 6678** or **helpline@dementiauk.org**

Alzheimer Scotland provides the **National Dementia Helpline** on **0808 808 3000** or **helpline@alzcot.org** in Scotland as well as local services all over Scotland for people with dementia and their carers.

Alzheimer's Society runs the **Dementia Connect helpline** in England, Wales, and Northern Ireland on **0333 150 3456**. They offer information, support and guidance to anyone affected by dementia.

The **Lewy Body Society** provides support and advice to people with dementia with Lewy bodies, their families, and carers. You can contact a helpline advisor on **01942 914000** or email **info@lewybody.org**

Rare Dementia Support provides support and information for people with rare types of dementia like frontotemporal dementia. Find out more at **www.raredementiasupport.org** or you can call them on **0203 325 0828**, leave a message and an appropriate team member will get back to you, or email **contact@raredementiasupport.org**

Taking part in research

People with and without dementia who take part in research studies or clinical trials play an essential role in helping scientists to understand dementia and test potential new treatments and therapies.

Taking part in research is a positive thing to do and helps people living with dementia now and future generations.

Join Dementia Research is a national service that allows you to register your interest in taking part in dementia research studies. Visit www.joindementiaresearch.nihr.ac.uk to register, or call **0300 111 5 111** (9-5pm Monday to Friday).



Research

Alzheimer's Research UK has funded **£51.2 million** of research into the development of new treatments for dementia.

Through the research we fund into the causes of dementia, our scientists are building a detailed picture of what happens in the brain in diseases like Alzheimer's—taking essential steps towards developing new treatments to stop them.

Researchers at University College London will work with people who have early Alzheimer's disease to see if two drugs that boost noradrenaline, a chemical in our brains that plays a key role in thinking, memory, and behaviour, can improve memory and concentration.

Dr Matthew White's team will use cutting edge stem cell techniques to grow nerve cells in the lab and investigate how they change when the regulation of a protein called TDP-43 in frontotemporal dementia is disrupted. His research will also use the lab-grown nerve cells to study how potential drugs could reverse some of those effects and potentially treat the condition.

You can find out more about our research here
www.alzheimersresearchuk.org/research-projects

Alzheimer's Research UK is the UK's leading dementia research charity dedicated to making life-changing breakthroughs in diagnosis, prevention, treatment and cure.

We provide free dementia health information, like this booklet and others. If you would like to view, download or order any of our other booklets please details below.

Contact us

0300 111 5111

info@alzheimersresearchuk.org

Alzheimer's Research UK
3 Riverside, Granta Park, Cambridge CB21 6AD

Visit

www.alzheimersresearchuk.org/dementia-information

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Or scan the QR code



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