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Information in this booklet is for anyone who wants to know more about Alzheimer's and other forms of dementia. This includes people living with dementia, their carers, friends and families.

About Alzheimer's Research UK

Alzheimer's Research UK is the UK's leading dementia research charity. As research experts, we fund world-class pioneering scientists to find preventions, treatments and a cure for dementia. Our findings improve the lives of everyone affected by dementia now and in the future. We help people to understand dementia and the progress we are making. Read more about our work and achievements at **www.alzheimersresearchuk.org**

How you can help

You can help us in our mission to defeat dementia by donating today. To donate, call us on **0300 111 5555**, write to us at the address on the back cover or visit our website **www.alzheimersresearchuk.org/donate**

We rely on donations from individuals, companies and charitable trusts, money raised by individuals and gifts in people's Wills to fund our vital research.

Introduction

This booklet gives an introduction to Alzheimer's disease, dementia with Lewy bodies, vascular dementia and frontotemporal dementia. It covers:

what they are
typical symptoms
causes
diagnosis.

There is also information about how you can help lower your risk of developing dementia.

The information here does not replace any advice that doctors, pharmacists or nurses may give you but provides some background information that we hope you will find helpful.

If you would like more detailed information about different forms of dementia, treatments for dementia or information about caring for someone with dementia, we have separate leaflets that could help. Please contact us for your free copy.

Source

Please contact us using the details shown on the back cover if you would like a version of this booklet including references.

Review dates

This booklet was updated in November 2016 and is due to be reviewed in November 2018.

What is dementia?

Dementia is not a disease in itself. It is a word used to describe a group of symptoms that occur when some groups of brain cells stop working properly. This happens inside specific areas of the brain that can affect how you think, remember and communicate.

Common symptoms of dementia include the gradual loss of memory, decline in communication skills and difficulty with thinking and reasoning.

Alzheimer's is a disease that causes dementia. It is probably the best-known cause of dementia, accounting for about two-thirds of cases in older people. About 500,000 people in the UK have Alzheimer's.

Other brain diseases can cause dementia too. After Alzheimer's, the most common types of dementia are vascular dementia, dementia with Lewy bodies, Parkinson's dementia and frontotemporal dementia.

It is possible to have more than one of these diseases at the same time. Alzheimer's is sometimes seen with vascular dementia or dementia with Lewy bodies. You might hear this called 'mixed dementia'.

Rarer causes of dementia include Creutzfeldt-Jakob Disease (CJD), HIV/AIDS and alcohol-related dementia.

The latest figures show that dementia affects over 850,000 people in the UK today. Most people with dementia are over 65, but it's estimated that over 40,000 under-65s have dementia. Dementia in people under 65 is often called early-onset or young-onset dementia and the most common causes are early-onset Alzheimer's disease and frontotemporal dementia. A range of other rare conditions may also be responsible for early-onset dementia.



Alzheimer's disease is the most common cause of dementia, affecting about

500,000 people in the UK

It is estimated that over

40,000 under-65s have dementia

I keep forgetting things. Have I got Alzheimer's?



Dementia often develops slowly and is not always obvious in the early stages. Symptoms similar to dementia can be seen in other illnesses. Sometimes it can be difficult to tell apart dementia from the usual mild forgetfulness seen in normal ageing.

I keep forgetting things. Have I got Alzheimer's?

Most of us forget things every day, like people's names or where we put our keys, but this is not necessarily a sign of Alzheimer's or another form of dementia.

In dementia, memory loss is more serious than forgetting things occasionally.

There are many reasons why people become forgetful. Some medicines and drugs can affect memory, for example. Depression, anxiety, vitamin deficiency and thyroid problems can also cause forgetfulness, so it's important to get the right diagnosis.

If you are worried about your memory, if it's getting worse, or interfering with everyday life, then you should talk to your GP.

Symptoms

You should see your GP if you or your family and friends are worried about any changes in:

general mental functioning
ability to carry out daily tasks
personality
behaviour.

Your GP will be able to either reassure you or, if necessary, refer you to a specialist. Diagnosing dementia early is important to allow you to get the right help and treatments and to plan for the future.

Everyone with dementia will experience symptoms in their own way. Different diseases that cause dementia can have different early symptoms but many overlap.

Symptoms (continued)

Alzheimer's disease

Typical symptoms of early Alzheimer's include:

Regularly forgetting recent events, names and faces.

Becoming increasingly repetitive, e.g. repeating questions after a very short interval.

Regularly misplacing items or putting them in odd places.

Getting confused about the date or time of day.

Being unsure of where you are or getting lost, especially in unfamiliar places.

Having problems finding the right words.

Having mood or behaviour problems such as loss of interest in daily activity, becoming easily upset or annoyed or losing confidence.

Vascular dementia

The early symptoms may be similar to those of Alzheimer's. But vascular dementia can have many different symptoms, depending on the area of the brain affected.

The first symptoms of vascular dementia usually appear gradually but can develop suddenly depending on the cause.

Symptoms of vascular dementia can include:

Memory problems.

Disorientation.

Communication problems.

Becoming slower in thinking.

Personality changes including depression and losing interest in daily life.

Difficulty with walking.

Frequent urge to go to the toilet or other bladder symptoms.

Dementia with Lewy bodies

Dementia with Lewy bodies (also known as DLB or Lewy body disease) is thought to affect about 125,000 people in the UK.

Symptoms of DLB can include:

Variation in attention, alertness and confusion. These fluctuations can be very noticeable from day-to-day or even hour-to-hour.

Parkinson's-type symptoms, like slowing or difficulty walking, stiffness in the arms and legs and sometimes shaking or trembling.

Visual hallucinations. These can often involve seeing people or animals that aren't really there.

Fainting and falls.

Movements during sleep and vivid dreams.

Symptoms similar to Alzheimer's, including memory loss and disorientation.

The diseases that cause dementia can have different early symptoms, but many overlap.

Frontotemporal dementia

The term frontotemporal dementia (FTD) describes a number of different conditions. These include behavioural variant FTD and primary progressive aphasia, a term that describes several conditions affecting speech and language. FTD is quite rare and tends to affect people aged 45-64.

Symptoms of FTD can include:

Personality changes. These may include a change in how people express their feelings towards others or a lack of understanding of other people's feelings.

Lack of personal awareness, such as personal hygiene and grooming.

Lack of social awareness, such as making inappropriate jokes, or showing a lack of tact.

Overeating or changes in what people want to eat.

Behaviour changes, including developing unusual beliefs, interests or obsessions.

Difficulty with simple plans and decisions.

Lack of awareness of any personality or behaviour changes.

Decline in language abilities. This might include difficulty understanding words, repeating commonly-used words and phrases or forgetting the meaning of words.

Difficulty recognising people or knowing what objects are for.



Diagnosing dementia How dementia progresses

Diagnosing dementia, and which form of dementia someone has, is important. It will ensure that people can get the right support and treatments and can plan for the future.

Diagnosing dementia



Your GP is the first person to contact if you have any worries about your health. If your GP suspects dementia, you are likely to be referred to a memory clinic or specialist. These specialists may include old age psychiatrists, geriatricians, neurologists, clinical psychologists and memory nurses.



When you see a doctor or nurse with concerns about your memory or thinking, they will ask you about your symptoms and medical history. They may also speak with your partner or someone close to you about your symptoms. You may be asked some questions relating to your memory and have a physical check-up.



There is a range of memory tests available, and you might take one or more of these during your assessment. Because dementia gets worse over time, the tests may be repeated, perhaps after six to 12 months, to see if there have been any changes.



Other tests, including blood tests and brain scans, could be arranged. Very occasionally, your doctor may arrange an EEG (brain wave test) or a lumbar puncture (spinal tap) if they suspect a rare form of dementia. In a lumbar puncture, a needle is used to take a sample of fluid from the bottom of someone's spine.

Together all of these things will help a doctor find out about any problems in memory or thinking and the likely cause.

If you are assessed for the possibility of having Alzheimer's or another form of dementia, you can choose not to know the diagnosis. You can also decide who else can be told about your diagnosis.

If you, or someone close to you, are given a diagnosis of dementia, you may have many questions about what to do next. It is important to ask your doctor about local services that can help you and your family. You may be entitled to benefits and other types of support.

How dementia progresses

Alzheimer's disease, dementia with Lewy bodies and frontotemporal dementia are all neurodegenerative diseases. This means that the symptoms get worse over time. This is usually the case with vascular dementia too. The speed of change varies from one person to another and also between different diseases, but in most dementias, symptoms progress slowly over several years.

Everybody is unique and is affected in their own way. As dementia progresses:



Memory and thinking skills

People may find that their ability to remember, think and make decisions worsens.



Communication

Communication and language often become more difficult.



Behaviour and personality

A person's behaviour may change and some people can become withdrawn or depressed. Anxieties are also common.



Recognition

People may have difficulty recognising household objects or familiar faces.



Anger

Anger or agitation can be common in the later stages of dementia.



Restlessness

Problems with sleeping and restlessness at night may occur.



Unsteadiness

It is common for people to be unsteady on their feet and fall more often.



Extra help

Gradually people require more help with daily activities like dressing, going to the toilet and eating.

Across the UK there are local services and support groups for people living with dementia and their carers. You can contact the organisations and charities on page 14 to find out about support in your area.

What treatments and drugs are available?

There are several treatments available to help with the symptoms of Alzheimer's. There are also treatments that may be able to help with the symptoms of other dementias. You can speak to your doctor for more information or request our booklet 'Treatments for dementia'. Call us on **0300 111 5555**, or download a copy from our website,

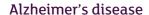
www.alzheimersresearchuk.org

What causes Alzheimer's and other dementias?

Does dementia run in the family?

What causes Alzheimer's and other dementias?

The causes of dementia are not yet fully understood but research is making progress. Understanding the causes of dementia is essential to developing new treatments.



Scientists know that in Alzheimer's, two proteins build up abnormally in the brain. They are called amyloid and tau and form clumps called 'plaques' and 'tangles'. These plaques and tangles interfere with how brain cells work and communicate with each other. The plaques are usually first seen in the area of the brain that makes new memories. A lot of research is focused on finding ways to stop the build-up of these proteins and protect brain cells from harm.

Vascular dementia

Vascular dementia is caused by a reduction in blood flow to the brain. Blood carries essential oxygen and nutrients to the brain and without them brain cells die. The network of blood vessels that carries blood around the body is called the vascular system.

Stroke-related dementia happens after a stroke. A stroke occurs when blood supply to a part of the brain is suddenly cut off. This may cause difficulties in moving, problems with coordination, speech and sight. If a stroke causes memory loss and problems with attention, then a person may be diagnosed with post-stroke dementia. Multi-infarct dementia is vascular dementia caused by a series of small strokes in the brain, which a person might not notice when they happen.

Subcortical vascular dementia is caused by a series of small injuries to blood vessels deep inside the brain. A person usually does not notice these changes and their cause is not yet known. Over time, they gradually damage parts of the brain that are important for attention, memory and language.



Dementia with Lewy bodies

Dementia with Lewy bodies is caused by small, round clumps of protein that build up inside nerve cells in the brain. These are named Lewy bodies after Dr Frederic Lewy, who first identified them. Similar changes occur in brain cells that control movement in people with Parkinson's disease, and some people with Parkinson's will go on to develop dementia.

The protein clumps damage the way brain cells work and communicate with each other. The nerve cells affected by Lewy bodies control thinking and movement. Researchers are working hard to understand what causes the protein to build up and discover ways to stop it happening.

Frontotemporal dementia

Frontotemporal dementia (FTD) is caused by a variety of abnormal proteins building up in the brain. The nerve cells affected are in areas of the brain called the frontal and temporal lobes. The frontal lobes are involved in regulating our personality, emotions and behaviour, as well as reasoning, planning and decision-making. The temporal lobes are involved in memory and the understanding and production of language. As the disease progresses, other parts of the brain become affected.

Does dementia run in the family?

The simple answer is most of the time, no. If you have several close relatives who have developed dementia under the age of 65, then it's possible that the disease could be an inherited form of dementia. Certain forms of early-onset Alzheimer's and frontotemporal dementia can run in families and often start in the 30s, 40s or 50s. These types of dementia are very rare.

In most cases, our risk of developing dementia is determined by a complex mix of our age, lifestyle and whether we carry any risk genes. Some research has suggested that if you have a parent or grandparent who developed Alzheimer's disease over the age of 65 then your risk of developing the disease may be slightly higher than someone with no family history. Researchers have found over twenty different versions of genes associated with an altered risk of Alzheimer's, but many only have a small effect on risk. Researchers are making strong progress unravelling the genetic risk factors for dementia.

Caring for someone with dementia

Caring for someone with dementia

Dementia has a huge impact on someone's life, as well as on their family and carers. Accessing services and support can make a positive difference to those affected.



Caring for someone with dementia

Some services will be provided by local authorities and others can be arranged through GPs. For advice, contact your local authority social services department. The number will be in the phone book and on the council website. Everyone with dementia is entitled to an assessment that establishes their needs and suggests how those needs can be met.

The following organisations provide information, support and care services to people affected by dementia as well as their families and carers. For more information ask for our booklet, 'Caring for someone with dementia: organisations that can help'.

Admiral Nursing DIRECT is a telephone helpline, provided by Admiral Nurses and supported by the charity Dementia UK. It offers practical advice and emotional support to people affected by dementia on **0800 888 6678**.

The Age UK advice line, 0800 169 8080, can give you information about help available through social services, as well as advice about issues faced by older people.

Alzheimer Scotland provides the National Dementia Helpline 0808 808 3000 in Scotland as well as local services all over Scotland for people with dementia and their carers.

Alzheimer's Society runs the National Dementia Helpline in England, Wales and Northern Ireland on **0300 222 1122**. They can give you information, support, guidance and signposting to other appropriate organisations.

The Carers Trust works to improve support, services and recognition for anyone living with the challenges of caring, unpaid, for a family member. Contact them on **0844 800 4361**.

Carers UK offers advice and information to carers through booklets, factsheets and its website. Their Adviceline can be contacted on **0808** 808 7777.

Guideposts provides services for people with long-term or degenerative conditions, including dementia. They also provide an online and telephone information resource called HERE that helps people to find out about support and care services. Call **0300 222 5709**.

The Lewy Body Society, in partnership with Parkinson's UK, provides support and advice to people with dementia with Lewy bodies, their families and carers. You can contact a helpline advisor on **0808 800 0303**.

The **NHS** provides free, confidential information and advice for carers through Carers Direct on **0300 123 1053**.

Rare Dementia Support runs specialist support services for people living with, or affected by, five rare dementias:

- frontotemporal dementia (FTD)
- posterior cortical atrophy (PCA)
- primary progressive aphasia (PPA)
- familial Alzheimer's disease (FAD)
- familial frontotemporal dementia (fFTD).

They provide regular support group meetings, newsletters, telephone contact networks and access to information and advice. Call **07341 776 316** or email **contact@raredementiasupport.org**

YoungDementia UK provides information, advice and support for people under 65 diagnosed with dementia, their family and friends. Call **01865 794311** to find out about support available in your area.

All about risk

Alzheimer's and other dementias are complex diseases. We are making considerable progress in understanding how they develop and it's clear that they don't have one single cause.



All about risk

It is likely that a mixture of our age, genes and lifestyle could contribute to our risk of developing dementia.

The risk of developing most dementias increases with age. That means as we get older, we are more likely to develop the condition. One or two people in every 100 of those aged 65 to 69 years have dementia, but this figure rises to one in five for those aged 85 to 89.

Dementia is not a normal part of getting older or an acceleration of ageing. It is caused by different diseases, most commonly Alzheimer's.

We can't change our age and there is currently no way we can completely prevent dementia but there may be some simple things we can all do that might help lower our risk.

A risk factor is anything that can increase your likelihood of developing dementia. Risk factors for cardiovascular disease (like heart disease and stroke) are also risk factors for all dementias.

So it's a good idea to keep healthy by:

not smoking

controlling high blood pressure

reducing your cholesterol level

controlling your blood glucose if you have diabetes

exercising regularly

achieving and maintaining a healthy weight

eating a healthy, balanced diet with lots of fruit and vegetables and low amounts of saturated fat

only drinking alcohol within the recommended limits.

Some studies suggest that enjoying an active life, with lots of interests and hobbies, might be beneficial. Other researchers have found that spending more time in education is associated with a lower risk.

There is currently not enough evidence to suggest that omega-3 fish oil or vitamin supplements could reduce the risk of dementia. It is not advised to take NSAIDs (non-steroidal anti-inflammatory drugs like aspirin or ibuprofen), HRT (hormone replacement therapy) or statins to protect against dementia, as research is continuing in this area. You should talk to your doctor before taking any supplements or drugs that claim to prevent dementia, as most are unproven and they can have serious side effects.

You might read or hear about other risk factors for dementia. Despite occasional publicity, research has not shown that eating meat, exposure to aluminium and living close to power lines are risk factors for dementia. There is also no firm evidence that turmeric, ginkgo, ginseng or coffee can protect against dementia.

some studies suggest that enjoying an active life, with lots of interests and hobbies, might be beneficial

Research

Volunteers, both 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.



Taking part in research

Join Dementia Research is a UK-wide service that allows you to register your interest in taking part in dementia research studies. It is funded by the National Institute for Health Research in partnership with Alzheimer's Research UK, Alzheimer Scotland and Alzheimer's Society.

To find out more, visit www.joindementiaresearch.nihr.ac.uk or call the Dementia Research Infoline on 0300 111 5 111.



The research we fund

Alzheimer's Research UK has funded over £66m of pioneering research across the UK into the causes, diagnosis, prevention and treatment of dementia.

Through the work we fund into the causes of dementia, our scientists are building a detailed picture of what happens in the brain in these diseases – essential for developing new approaches to stop it.

We believe that dementia can only be defeated through research. Thanks to the generosity of our supporters, we will continue to nurture and support the ideas of scientists who will take us one step closer to a cure.



Find out more

If you have questions about research or want to get involved, contact the **Dementia Research Infoline** on **0300 111 5 111** or email **infoline@alzheimersresearchuk.org**

You can also write to us at the address on the back of this booklet.

The Infoline operates 9.00-5.00pm Monday to Friday. Calls cost no more than national rate calls to 01 or 02 numbers and should be included in any free call packages. Interpreter services are available.

We are the UK's leading research charity aiming to defeat dementia.

We welcome your comments to help us produce the best information for you. You can let us know what you think about this booklet by contacting us using the details below.



Contact us

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Supporter care

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Dementia Research Infoline

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The Power to Defeat Dementia

