

REDUCING YOUR RISK OF DEMENTIA



INTRODUCTION

Just as we can protect other areas of our health, we can take steps to keep our brains healthy and reduce our risk of developing dementia later in life. Research has shown that our health in our 30s, 40s and 50s can have a large impact on our dementia risk. However, it's never too early or late to start thinking about our brain health.

This booklet provides an introduction to the factors that play a role in the development of dementia, and what we can do to reduce our risk.

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

The booklet was updated in September 2024 and is due to be reviewed in September 2026. It was written by Alzheimer's Research UK's Information Services team with input from lay and expert reviewers. Please get in touch using the contact details below if you'd like a version with references or in a different format.

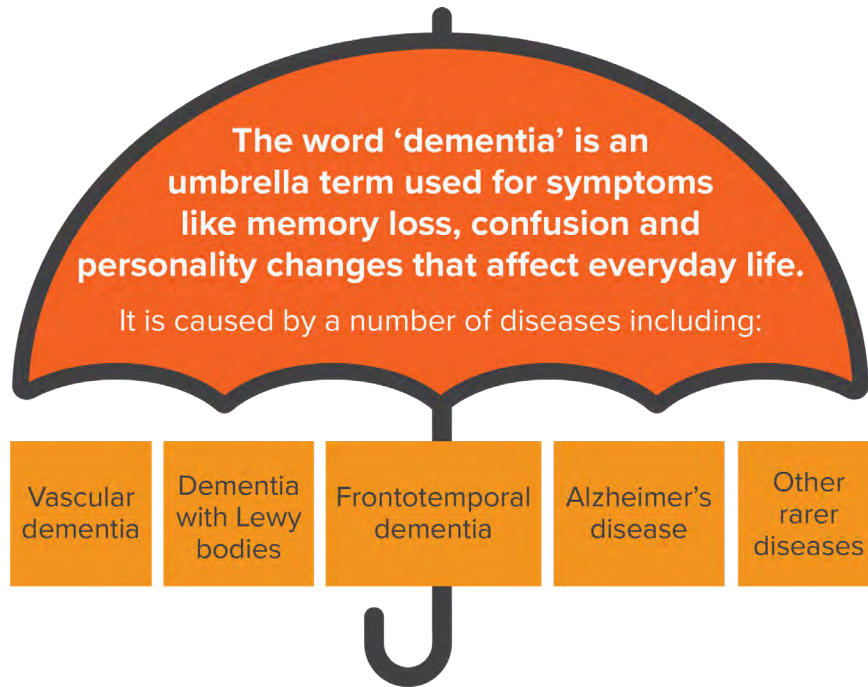
ANY QUESTIONS

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

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WHAT IS DEMENTIA?

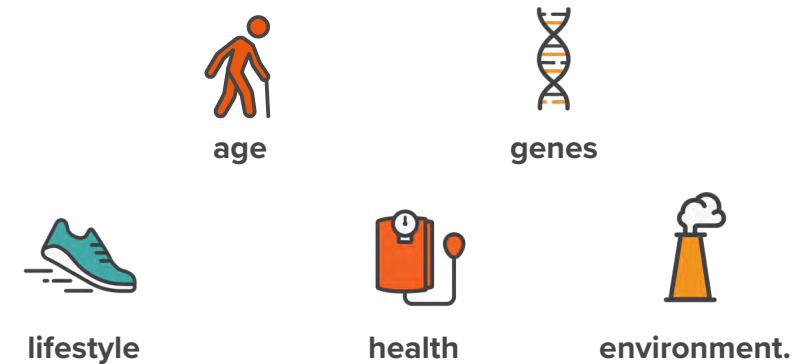


You can request more information about different types of dementia using the contact details at the back of this booklet.

If you are experiencing symptoms of dementia, it's important to speak with your GP who can carry out some tests to find out what might be causing them, and what support might help. For more information, request our booklet "**Getting a dementia diagnosis**".

WHAT IS A RISK FACTOR?

A risk factor is something that affects our chances of developing a condition like dementia. Most cases of dementia are caused by a mixture of risk factors including our:



Some of these factors we can't change, like our age and genes, but research suggests that up to half of dementia cases are linked to risk factors we have some control over. This means that there are things we can do to protect the health of our brains and reduce our likelihood of getting dementia in the future.

The information in this booklet provides a background on dementia risk, and how we may be able to reduce it. More in-depth information about dementia risk factors can be found at alzres.uk/risk or requested by contacting us using the details on the back of this booklet.

RISK FACTORS WE CANNOT CHANGE



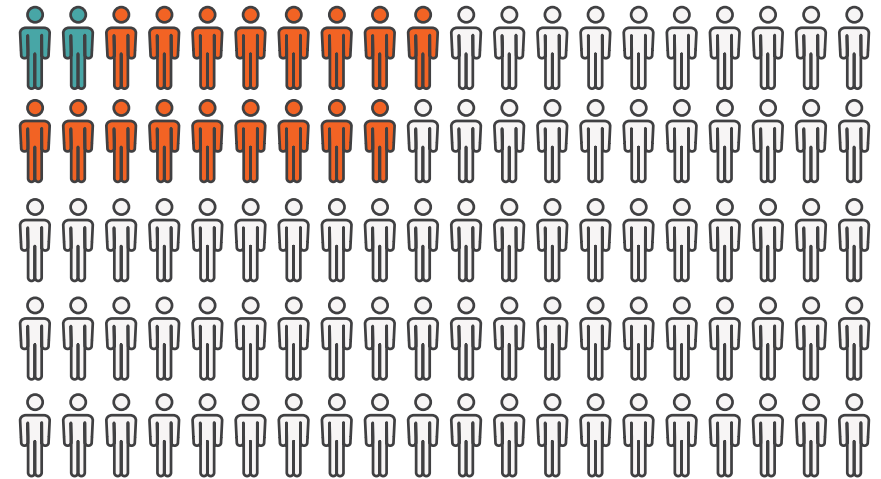
The biggest risk factor for dementia is age. The older we are the more likely we are to develop a disease that causes dementia. But these diseases are not inevitable parts of ageing.

Older age increases the risk of developing dementia because of various underlying processes that happen to our bodies over time. For example:

- as we age our bodies and brains become more vulnerable to damage and disease.
- we are more likely to have other medical conditions that increase our risk of dementia too, like high blood pressure and hearing loss.
- the brain changes that lead to diseases like Alzheimer's can take decades to develop before they start to affect everyday life. So, the longer we live the more chance there is that the diseases progress to a point where we experience symptoms.

The important thing is that it's never too late in life to start thinking about our brain health and taking steps to reduce our risk of developing dementia.

About **two in every 100 people aged 65 to 69** years have dementia, and this figure rises to **19 in 100 among those aged 85 to 89**.





GENES

For most of us our risk of dementia is made up of many complex factors, including our age, environment, lifestyle, health and our genes.

There are some genes that many of us carry that can increase our likelihood of getting a disease like Alzheimer's, compared to people who don't have the genes. These genes don't mean a person will definitely get dementia, just that their risk is higher. Importantly, people who carry common risk genes for Alzheimer's disease can still reduce their risk through lifestyle changes.

Other rare genes can lead to directly inherited dementia. This is where multiple people in the same bloodline are affected by the same type of dementia, often in their 40's and 50's.

To find out more, ask for our free booklet "**Genes and dementia**" using the contact details on the back page.



SEX

In the UK two out of every three people with dementia are women. The term 'women' is used here to refer to people born with female sex chromosomes and reproductive organs rather than their gender identity.

It is still not fully understood why dementia is more common in women. Evidence suggests that this difference in dementia risk linked to factors such as longer life expectancy, less historical access to education, and a higher risk of other medical conditions.

In women, levels of sex hormones throughout life might also influence dementia risk, for example during the menopause.



ETHNICITY

Some ethnic groups may be at higher risk of developing dementia. This increased risk can mostly be explained by:

1. Having a higher risk of developing conditions like high blood pressure and diabetes, which increase dementia risk. Find out more about these conditions, including steps we can take to manage them on page 20.
2. Certain populations may be more likely to live in deprived neighbourhoods. This can result in less access to opportunities for work, education and physical activity. This may increase dementia risk.

For more information about risk factors for dementia we can't change, visit alzres.uk/risk or contact us using the details on the back of this booklet.

RISK FACTORS WE CAN INFLUENCE OR SEEK SUPPORT FOR

Almost half of dementia cases worldwide are linked to risk factors we have some control over. You might hear these being called ‘modifiable’ risk factors.

This means that there are things we can do to protect our brain health and reduce our risk of developing dementia. This is particularly important in our mid-life (aged 40-65), but it’s important at any age to take steps to look after our brain health.

Some factors that affect our risk of dementia include:

- medical conditions, such as hearing loss, high blood pressure and diabetes.
- how much physical activity we do and whether we smoke.
- our level of education and how often we challenge our brains.
- social isolation.

We have more control over some of these factors than others. For example, we often can’t change the quality or amount of early life education we had. But we can do more physical activity and get our hearing checked.

Because our age, genes, and other factors, play a role in the development of dementia too, many people know someone who had a healthy lifestyle and still developed dementia. And for others, we can never say for sure that a certain lifestyle behaviour led to their dementia – it is important that people are not made to feel they are ‘to blame’.

But we know that, on average, taking steps to reduce our risk can make a difference. And we’ll also be helping to improve our overall health, too.

The following pages give information about modifiable risk factors, and steps we can take to reduce our risk of dementia.

For more in-depth information about these risk factors and how they contribute to the development of dementia visit alzres.uk/risk or contact us using the details on the back of this booklet.

FACTORS LINKED TO DEMENTIA RISK

EARLY LIFE



MID-LIFE



LATER LIFE



Quality of
education



Hearing
impairment



High
cholesterol



Depression



Traumatic
brain injury



Physical
inactivity



Uncorrected
visual impairment



Diabetes



Smoking



High blood
pressure



Obesity



Excessive
alcohol



Social
isolation



Air
pollution



DO NOT SMOKE

If you smoke, quitting is one of the most significant steps you can take in boosting your heart and brain health. Smoking is linked to multiple medical conditions including cancer, heart disease, high blood pressure and dementia.

Getting help from your local Stop Smoking Service can greatly boost your chances of giving up smoking successfully.

The NHS Smokefree National Helpline is free to call on **0300 123 1044** or talk to your doctor for advice. You can find out more at nhs.uk/smokefree

It's never too late to stop smoking. Even in later life, quitting can substantially reduce your risk of dementia and other diseases, improve the health of those you live with, and save you money.

IT'S NEVER TOO LATE TO STOP SMOKING.



LOOK AFTER YOUR HEART

What's good for your heart is good for your brain. That's because the brain relies on a good blood supply to stay healthy. Taking steps to look after our heart can help lower our risk of cardiovascular diseases, and our risk of dementia too.



BE PHYSICALLY ACTIVE EVERY DAY

Physical activity has lots of positive effects on the body and reduces our risk of getting dementia. It keeps blood pumping around our body and brain. Our blood delivers oxygen and nutrients to our brain cells, allowing them to work properly.

Building activity into every day has lots of health benefits, including:



helping to prevent and control many long-term conditions, like high blood pressure and high cholesterol.



helping to maintain a healthy weight, reducing your risk of obesity, type 2 diabetes and heart disease - which are themselves risk factors for dementia.



reducing the risk of falls and injury by improving strength, balance and coordination.

Being active doesn't have to involve going to the gym or running a marathon. You are more likely to do regular physical activity if you find things you enjoy doing that you can build into your daily life. Keeping active with others is a good way to encourage each other to be more active more often too.

Aim to be active every day. Try not to spend too long sitting. It can be hard for many of us to avoid this (perhaps because of our jobs) but we can break it up with movement or activity of some kind.

Each week, try to do:



STRENGTHENING ACTIVITIES

On at least two days every week.

These include arm raises, push-ups, planks and pull-ups.

and



IF YOU'RE OVER 65

Activities to improve balance and coordination – on at least two days every week.

You should also include:



MODERATE INTENSITY ACTIVITIES

150 minutes (e.g. 30 minutes on 5 days)

You will breathe a little faster but still be able to talk.

or



VIGOROUS INTENSITY ACTIVITIES

75 minutes

These make you breathe fast and you will find talking difficult.

Or a combination of both.



LIMIT HOW MUCH ALCOHOL YOU DRINK

Heavy drinking can damage our brains and is related to an increased risk of many conditions including dementia, cancer, stroke and heart disease.

The Chief Medical Officer's low-risk guidelines recommend that you avoid drinking more than 14 units of alcohol a week. If you drink, it's better to spread what you drink each week over at least three days, with several drink-free days each week. If you are concerned about alcohol consumption you can talk to your doctor for advice.



1.5 units

A small (125ml) glass of wine (12% ABV)



1 unit

Half a pint (almost 300ml) of normal strength beer, cider or lager (3.5% ABV)



1 unit

A pub measure (25ml) of spirits

Research has found a link between regularly drinking more than the recommended level of alcohol and an increased risk of dementia.

Also, long-term heavy drinking is known to cause specific alcohol-related dementia, including Wernicke-Korsakoff Syndrome (WKS). WKS is caused by a lack of vitamin B1 (also called thiamine). Early treatment with this vitamin can reverse the symptoms, but without treatment and stopping drinking the condition can lead to permanent memory loss.





MAKE HEALTHY FOOD CHOICES

A healthy balanced diet can help to reduce our risk of conditions like diabetes, high blood pressure, high cholesterol and obesity, which all increase our risk of developing dementia.

Eating too much saturated fat and sugar can increase the risk of heart disease and dementia. In order to avoid this, high fat and sugary snacks such as sweets, chocolate, biscuits and fizzy drinks should be an occasional treat and only eaten in small amounts.

You can find out more about how to achieve a healthy balanced diet at [nhs.uk/live-well/eat-well](https://www.nhs.uk/live-well/eat-well)

A Mediterranean-style diet (called the MIND diet) that is low in meat and dairy, but rich in:

- fresh fruit and vegetables
- cereals
- beans
- nuts
- and 'healthy' fats like olive oil

has been linked to a range of health benefits including improved brain health. However, further evidence is needed to find out more about whether it can directly reduce dementia risk.



MANAGE LONG-TERM HEALTH CONDITIONS

Getting tested for and managing certain long-term health conditions can reduce the damage they cause to our hearts, brains and bodies over time. In turn, this can reduce our risk of dementia. The health conditions mentioned here are linked to an increased risk of dementia.



HIGH BLOOD PRESSURE

High blood pressure is a common condition that affects over 1 billion people worldwide. People with unmanaged high blood pressure in mid and later life are around three times more likely to develop dementia than individuals with normal blood pressure.

Long term high blood pressure leads to a hardening of our blood vessels. This is called atherosclerosis, which makes our blood vessels narrower overtime. Narrow blood vessels are unable to deliver as much oxygen and nutrients to our brain cells which causes damage and increases the risk of dementia. They also increase our risk of strokes and mini strokes which in turn increase our risk of dementia too.

Measuring blood pressure

Blood pressure is shown in numbers like this

$$\frac{90}{60} \text{ mmHg}$$

- The higher number is known as 'systolic pressure'. This is when the heart beats to pump blood.
- The lower number is the 'diastolic pressure'. This is when the heart relaxes between beats.

A healthy blood pressure is when your systolic blood pressure is between 90 and 120 blood pressure units, and your diastolic blood pressure is between 60 and 80.

If you are diagnosed with high blood pressure, doctors can prescribe medications and lifestyle changes to manage the condition.



HIGH BLOOD PRESSURE AFFECTS ONE IN THREE ADULTS IN THE UK.



HIGH CHOLESTEROL

Cholesterol is a type of fat that's found in the blood. There are different types of cholesterol, some bad, and some good.



HDL: often called 'good cholesterol,' helps to protect our heart and blood vessels.



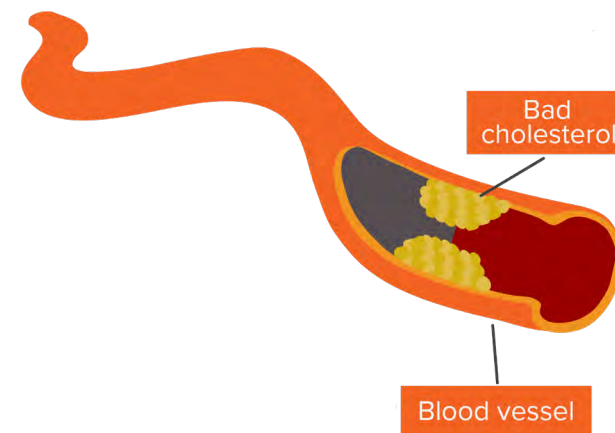
LDL: this is known as bad cholesterol, too much of this clogs our blood vessels and leads to serious health problems such as stroke, heart disease and dementia.



Total: your HDL and LDL levels combined.

The term 'high cholesterol' is used when there is too much LDL cholesterol or total cholesterol in your blood.

Having high levels of LDL cholesterol (bad cholesterol) in our 40s, 50s and 60s can increase our risk of dementia. Low levels of HDL cholesterol (good cholesterol) in our 30s to 60s can also increase our risk too.



We can reduce the amount of bad cholesterol and increase the amount of good cholesterol in our blood by:



replacing unhealthy fats with healthy fats, such as nuts, fish and avocados.



keeping active.



maintaining a healthy weight.



not smoking.



limiting the amount of alcohol we drink.

If you are told you have high cholesterol there are medications and lifestyle changes that can help manage it.

DIABETES

People with type 2 diabetes in mid-life have an increased risk of developing dementia, in particular vascular dementia, compared to people without diabetes.

People with severe or poorly managed type 2 diabetes are more likely to develop dementia. The longer someone has had type 2 diabetes for also increases their risk - for every five extra years that someone has diabetes up to age 70, the more likely they are to develop dementia.

Research points towards three reasons that diabetes increases our risk of dementia:



it causes damage to blood vessels, leading to damage to brain cells and increasing our risk of stroke.



it changes the way our brains use energy, due to resistance to a hormone called insulin which regulates our blood sugar levels.



it can also cause our immune system to become overactivated and release chemicals which can damage our brain cells, this is known as inflammation.

Research has suggested that people managing their diabetes using drugs like metformin may be less likely to develop dementia. Large clinical trials are ongoing to see whether certain other diabetes drugs lower dementia risk in people without diabetes and whether they can be used as future treatments.

OBESITY

Research has found that obesity between the ages of 35-65 could increase dementia risk.

Obesity is a medical term used to describe carrying an excess amount of body fat which affects a person's health. It is measured in a few different ways:

- Body Mass Index (BMI), where a person's weight is compared against their height.
- waist circumference, or to compare a person's waist circumference to their hip circumference.

These measures of obesity do not work for everyone. We are all built differently, and they don't consider someone's level of fitness, how much muscle they have or whether someone is otherwise healthy – for example has normal blood pressure and cholesterol levels.

Being obese can put a strain on our heart, blood vessels and our brains. Carrying excess fat increases the likelihood of medical conditions that in turn increase our risk of developing dementia:



high blood pressure



heart disease and stroke



high cholesterol



diabetes.

NHS HEALTH CHECKS

The NHS Health Check is a free check-up of your overall health offered to those living in some areas of England and Scotland.

The check aims to support you to reduce your risk of developing heart disease, diabetes, kidney disease, stroke and dementia. If you are aged 40-74, and do not already have cardiovascular disease, you will be invited for a check-up every five years.



At an NHS Health Check, you will:

- be asked some simple questions about your health and family history.
- have your height and weight measured.
- have your blood pressure and cholesterol levels checked.

The results from your Health Check will be shared with you along with advice to help you stay healthy.

If you are outside the age range for an NHS Health Check, you can use the Heart Age tool on the NHS website for advice about looking after your health. If you are over 75 you can request a Health Check from your doctor at any time.

If you live in an area not covered by the NHS health check and have concerns about your brain health or general health, you can talk to your doctor about how to address this. Some pharmacies also offer check-ups. You can find more information at [nhs.uk/nhshealthcheck](https://www.nhs.uk/nhshealthcheck)

IF YOU ARE OVER 75 YOU CAN REQUEST A HEALTH CHECK FROM YOUR DOCTOR.

You can speak to your doctor about the best ways to get checked for any of the conditions mentioned in this booklet, and how to manage them if you are diagnosed. You can find out more about each of these conditions and how they affect our dementia risk on our website at [alzres.uk/risk](https://www.alzres.uk/risk)



**KEEP
CONNECTED**

HEARING AND EYESIGHT

Looking after our hearing and sight could help to reduce our dementia risk. It's important to have your hearing and sight tested regularly, and to follow prescribed treatments to correct any problems identified.

It's thought that untreated hearing and vision problems may increase our risk of dementia because:



people with these conditions are more likely to experience loneliness, depression and social isolation due to being less connected to the world around them. We know that these are risk factors for dementia in themselves.



they can make our brain less resilient to damage. It's important to keep our brains stimulated and challenged throughout our lives to maintain good brain health. Damage to our senses results in our brains receiving less stimulation and becoming more vulnerable to diseases like Alzheimer's.

Studies have suggested that using a hearing aid could avoid some or all of the extra dementia risk that hearing loss may add.

Some cases of visual impairment are preventable, and others can be treated effectively. New research has suggested that taking steps to protect our vision could also help to reduce our dementia risk.

SOCIAL ISOLATION

Social isolation has also been linked to a higher risk of dementia. Research suggests that people who have little or no social contact with other people may have smaller learning and memory centres in the brain. As these areas are often the first to be affected by dementia, it's important to protect them throughout our lives as much as possible.

Keeping socially connected by spending time with other people, joining clubs or talking with people on the phone can make us feel happier and more positive in life. And doing these things helps us to look after our brain health.

DEPRESSION

Another condition linked to an increased risk of dementia is depression. Depression is a common condition that affects around one in five adults in the UK.

The relationship between depression and dementia risk is complex because depression can also be an early symptom of dementia. It's important to remember that not everybody with depression will develop dementia, and not everybody with dementia will experience depression.

If you are worried you have depression, your GP or local mental health service is the best place to contact for advice. You can find out about your local mental health services at [nhs.uk/nhs-services/mental-health-services/how-to-find-local-mental-health-services/](https://www.nhs.uk/nhs-services/mental-health-services/how-to-find-local-mental-health-services/)

STAY SHARP

Several studies have suggested that staying mentally active and challenging our brains by learning into later life could help reduce our risk of dementia.

These activities may include doing crossword puzzles or Sudoku, learning a new skill, or taking up a new hobby. It's not clear which of these things could be most beneficial, but it's a good idea to do things you enjoy keeping your mind active. Other studies have found that spending more time in education is associated with a lower risk.

The amount and quality of early years education we receive has an impact on our dementia risk. While we don't have much control over this risk factor it's important that the government takes action to ensure children have access to good quality learning throughout childhood. There may also be benefits of returning to education in adult life.



OTHER RISK FACTORS



AIR POLLUTION

Air pollutants are tiny particles and gases in the air that come from various sources, including vehicle exhausts and tyres, and burning wood and fossil fuels.

More evidence is emerging around air pollution and the harm it can have on our brain health. Air pollution is linked to many health conditions like heart disease which in turn increase our risk of dementia. Researchers think that air pollution and dementia may be linked by the damage to blood vessels that air pollution causes.



HEAD INJURY

Research has found that a serious head injury or trauma may increase the risk of developing dementia.

Mild repeated head injury, such as frequent concussion from playing contact sports, has also been linked to an increased risk of dementia.

Research is ongoing in this area to understand more about the relationship between head injuries and dementia.

FOR A HEALTHIER BRAIN



KEEP ACTIVE

Aim for at least 150 minutes of physical activity each week.



DO NOT SMOKE

If you smoke, quitting is one of the best things you can do for your brain health.



CUT DOWN ON ALCOHOL

Drink less than 14 units of alcohol per week.



LOOK AFTER YOUR MENTAL HEALTH

Speak to your GP or somebody you trust if you have concerns.



EAT A BALANCED DIET

Try to follow a balanced diet. Only eat high fat and sugary foods as an occasional treat.



PREVENT OR MANAGE DIABETES

By eating healthily and managing your weight, you can reduce your risk and manage symptoms of diabetes.



MANAGE YOUR BLOOD PRESSURE

Get your blood pressure checked regularly. Try to keep your systolic blood pressure at 130 mm Hg or less from age 40 years.



MANAGE CHOLESTEROL LEVELS

Try to keep your cholesterol level below 200 mg/dL. Many of the other steps listed here may help you do this.



TAKE CARE OF YOUR HEARING

Get your hearing checked regularly, and wear a hearing aid if you've been given one. Wear ear defenders in noisy environments.



LOOK AFTER YOUR EYES

Get any concerns about your vision checked by a professional.



KEEP SOCIALLY CONNECTED

Take part in regular social activities like dance classes and game nights.



STAY SHARP

Keep challenging your brain throughout your life.



PROTECT YOUR HEAD

Wear a helmet during sports or when riding a bike.

TAKING PART IN RESEARCH

There are still lots of unanswered questions about why some people get dementia and others don't. To help researchers find the answers, they need people like you to take part in studies.

People with and without dementia can take part in dementia research. You can register to take part at joindementiaresearch.nihr.ac.uk or by calling **0300 111 5111**.



STILL HAVE QUESTIONS?

If you have questions about dementia risk, research or want to find out more about how you can get involved in studies, contact our **Dementia Research Infoline** on **0300 111 5111** or email infoline@alzheimersresearchuk.org

The Infoline operates 9.00am-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.

RESEARCH

Alzheimer's Research UK has funded over £7 million of research into the prevention of dementia. This includes part-funding a large review of current evidence around risk factors, revealing the 14 factors that we can change.

We have also funded one of the largest risk studies to date, Insight 46. This project has followed a group of people since their birth in the same week in March 1946 to tease apart why some people may go on to develop dementia and others not.

Our Think Brain Health campaign helps to turn research findings into practical steps that we can take to protect our brain health throughout life and help reduce our risk of developing dementia.

The campaign is built around three simple rules for better brain health; Love your heart, Stay sharp and Keep connected. So far, more than 1 million people have visited our brain health hub.

To find out more, and to complete the quick Think Brain Health Check-in, visit thinkbrainhealth.org.uk

But we will not stop there. With your support, we're empowering people to reduce their risk of dementia, and investing in research to lead the search for a cure.

We are Alzheimer's Research UK.
We exist for a cure.

Alzheimer's Research UK is the UK's leading dementia research charity. We provide free dementia health information, like this booklet and others.

If you or your loved one have been diagnosed with dementia in the last two years and would like to share your experience to help shape our work visit alzres.uk/MCV

ORDER

**alzheimersresearchuk.org/supporter-orders
or scan the QR code**



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VISIT

alzheimersresearchuk.org/dementia-information

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