

ALZHEIMER'S RESEARCH UK

**FOR A
CURE**

**IS THE CHARITY LEADING THE
SEARCH FOR A CURE.**

We fund research into all forms of dementia and are working to revolutionise the way we treat, diagnose and prevent dementia.

Sue Granshaw

Volunteer – Community Champion

Alzheimer's Research UK

Wycombe District Dementia Action



THE ONLY UK-WIDE DEMENTIA RESEARCH NETWORK

of dementia research scientists
established by Alzheimer's Research UK



OUR RESEARCH STRATEGY



RESEARCH CULTURE

If nothing changes,

**1 IN 2 OF US
WILL SEE
OUR LIVES
DEVASTATED
BY DEMENTIA**

either by developing it
ourselves, caring for someone
who has it, or both.



**THE LEADING
CAUSE OF
DEATH IN
THE UK.**

**ALMOST
1,000,000
PEOPLE**

are living with dementia
in the UK today.

It costs the UK economy
**OVER £25BN
EACH YEAR,**
that's more than heart disease
and cancer combined.

NO ONE
has survived
dementia. Yet.

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There is only
**1 DEMENTIA
RESEARCHER**



for every
**4 WORKING
ON CANCER.**



Total spend on research by charities and governmental organisations in the UK (in millions £)

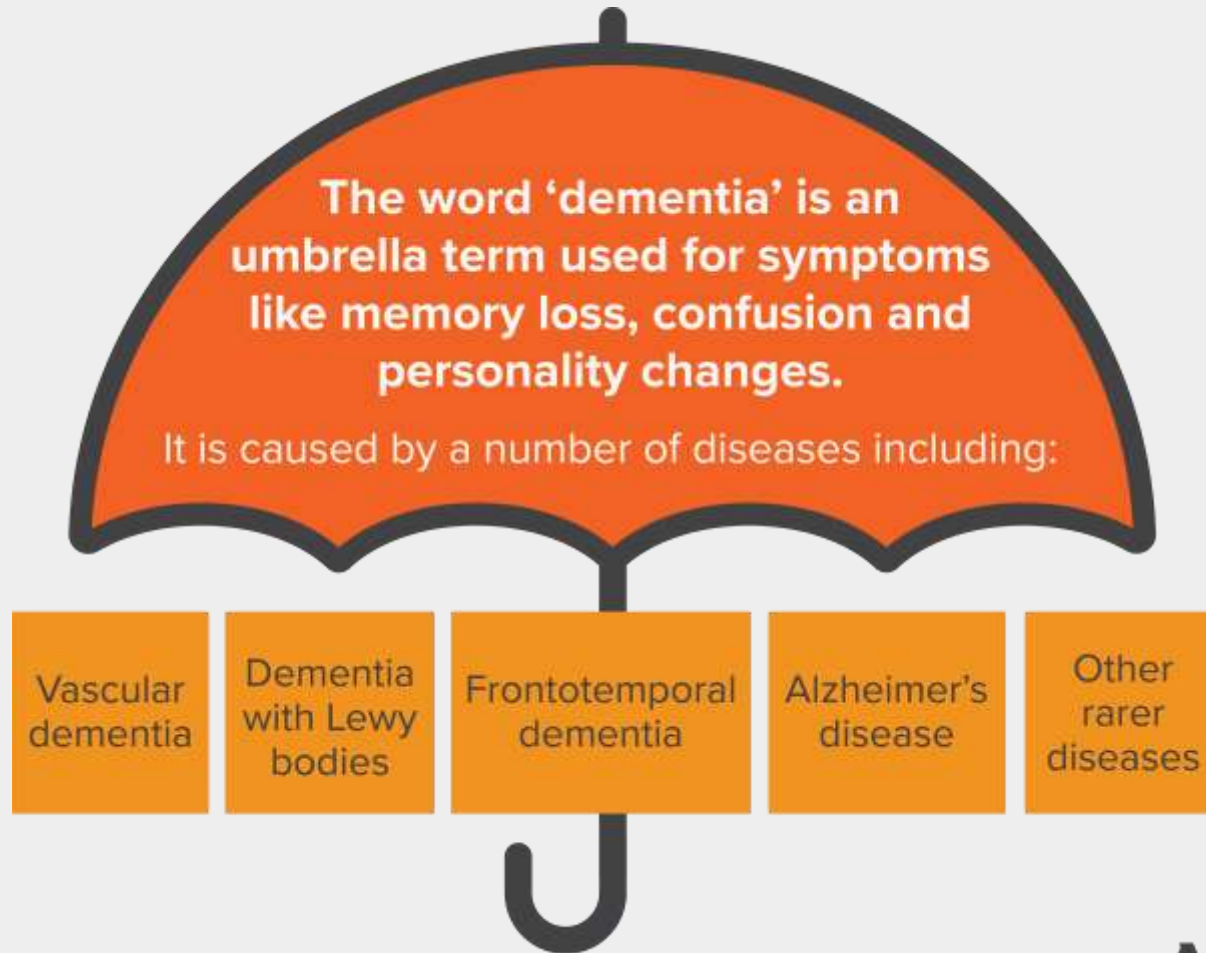


“The **only thing** holding back breakthroughs
in dementia research **is investment.**”

Dr Fiona McLean, ARUK researcher

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WHAT IS DEMENTIA?

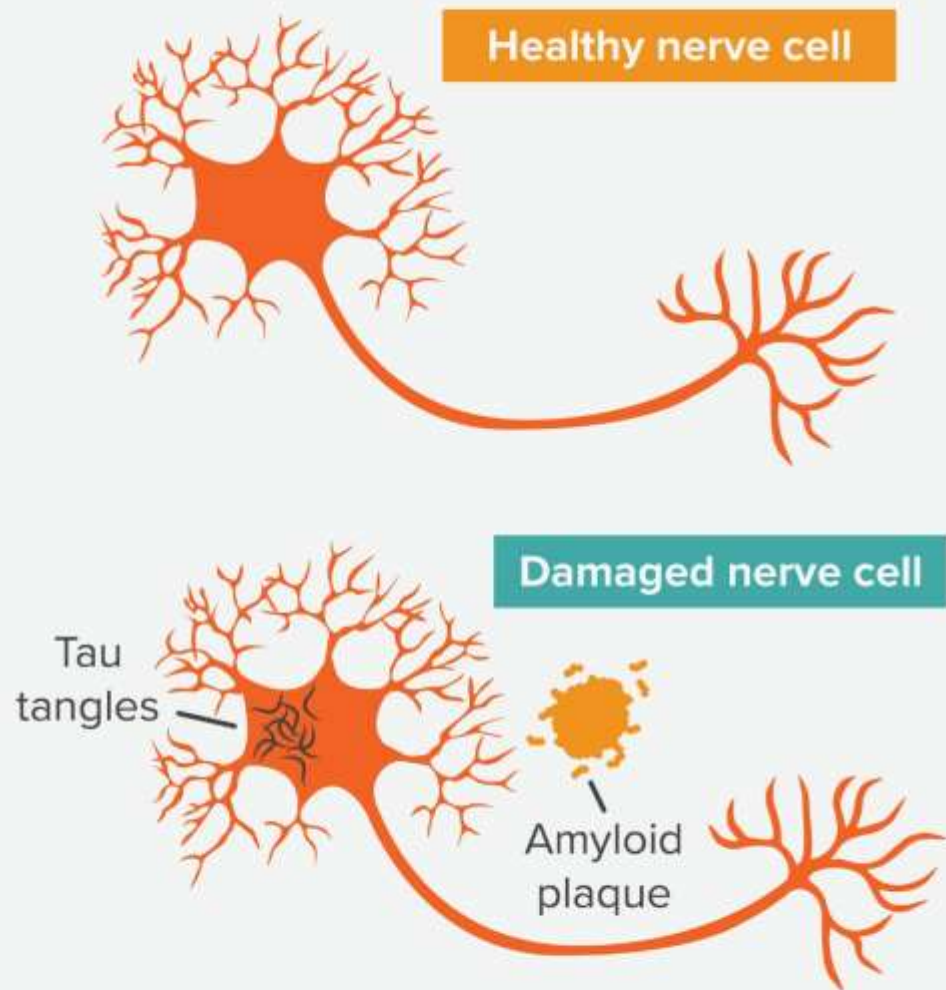


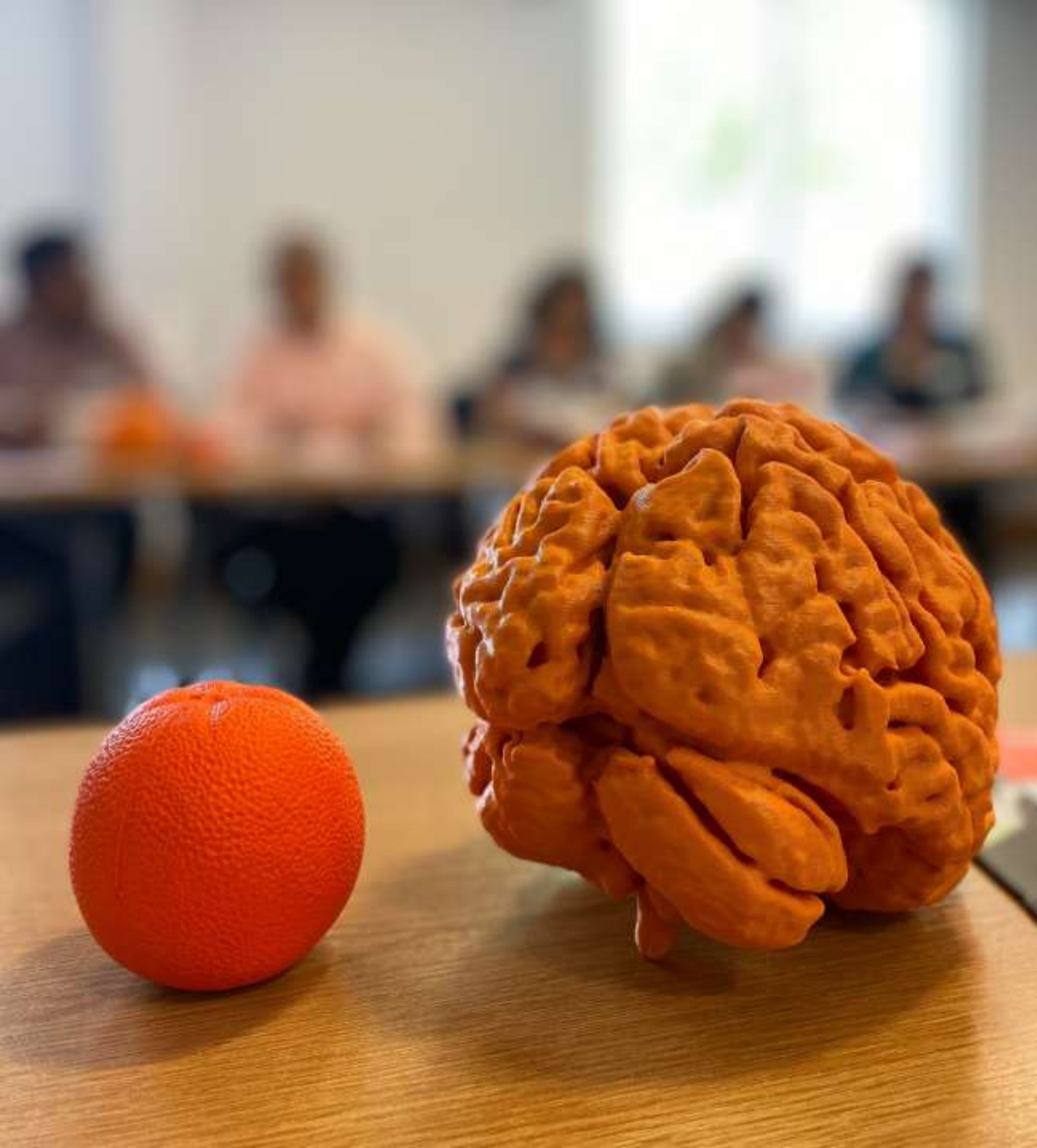
5 KEY THINGS TO REMEMBER ABOUT DEMENTIA

- Dementia is **not a specific disease itself.**
- Dementia is **more than just memory problems.**
- Dementia is **caused by diseases that affect the brain.**
- Dementia is **not an inevitable part of getting older.**
- Dementia is **progressive and ultimately causes death.**

WHAT HAPPENS IN A BRAIN WITH DEMENTIA?

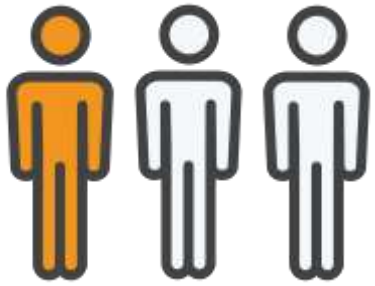
- Dementia is caused by physical brain diseases.
- Most common way diseases affect our brains is through the build-up of toxic proteins.
- Nerve cells become damaged and die.
- Certain parts of the brain start to shrink.





TYPES OF DEMENTIA

VASCULAR DEMENTIA



One in three people who have a **stroke** go on to develop vascular dementia



Blood vessel diseases contribute to brain cell damage, leading to vascular dementia.

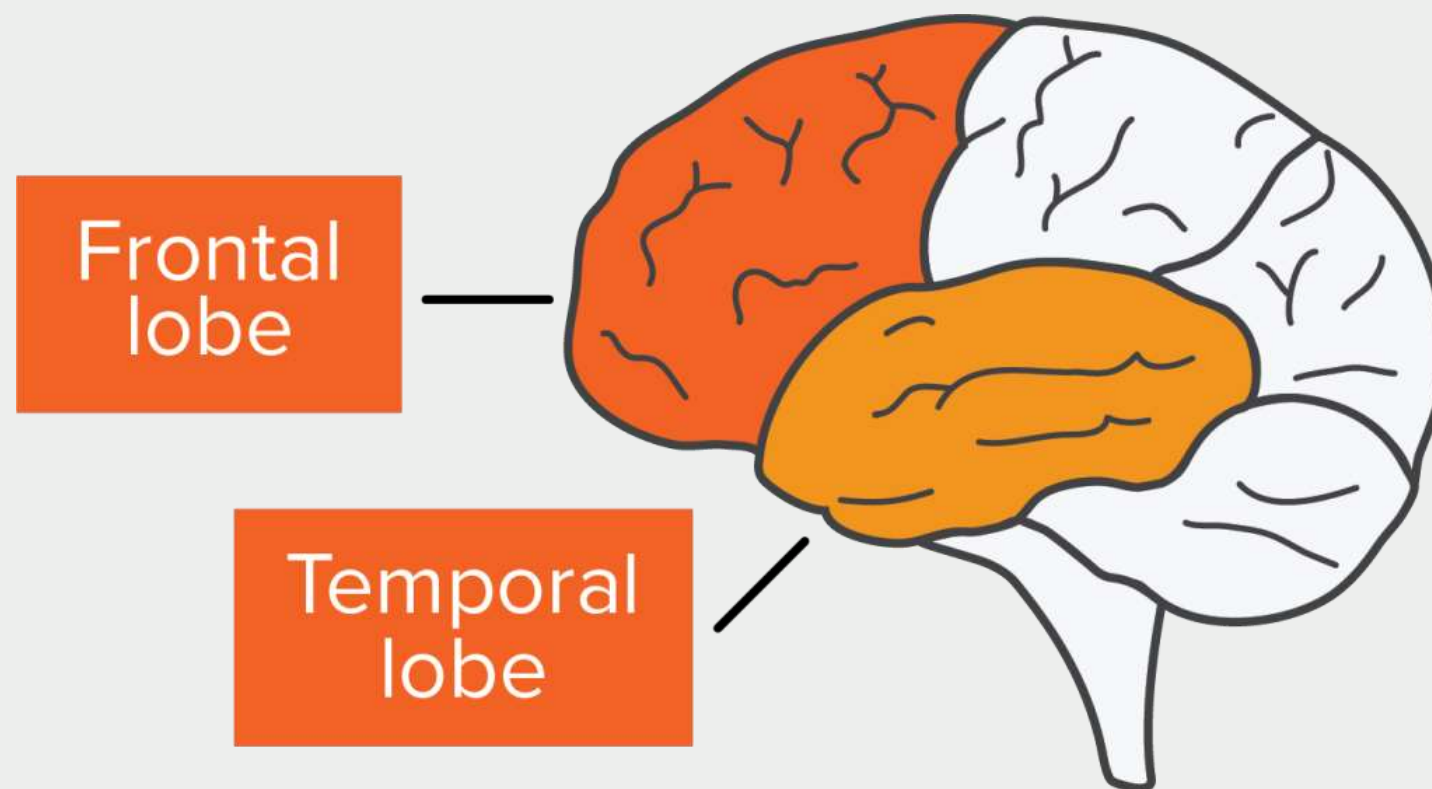


ONE IN FIVE CASES OF DEMENTIA ARE CAUSED BY VASCULAR DEMENTIA.

DEMENTIA WITH LEWY BODIES



FRONTOTEMPORAL DEMENTIA



MILD COGNITIVE IMPAIRMENT (MCI)

Mild cognitive impairment also referred to as MCI, describes memory and thinking problems that are mild but still noticeable.

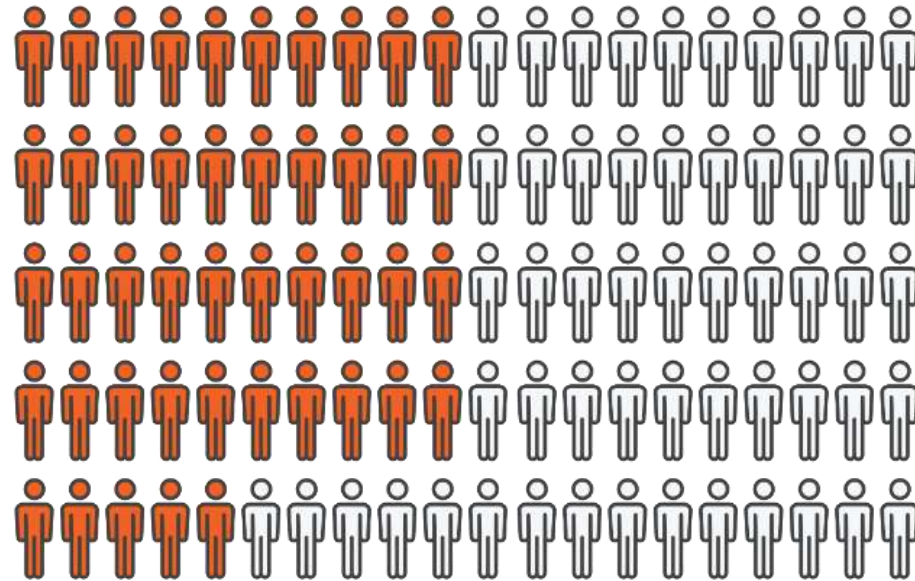
Mild - not severe.

Cognitive - to do with the way our brains think, plan and understand.

Impairment - not working as well as it should.

MCI can be caused by lots of conditions and does not always lead to dementia.

RESEARCH SUGGESTS THAT ALMOST HALF OF DEMENTIA CASES
WORLDWIDE COULD BE PREVENTED OR DELAYED...



... IF 14 RISK FACTORS WERE COMPLETELY ELIMINATED.

DEMENTIA RISK FACTORS

Most cases of dementia are caused by a mixture of our...



Age



Genes



Health



Lifestyle



Environment

WHAT ARE THE BIGGEST MODIFIABLE RISK FACTORS?

- The new report estimates that the most important risk factors, linked to the greatest proportion of people developing dementia, are:



Uncorrected
hearing loss (7%)



High
cholesterol
(7%)



Less education
in early life
(5%)



Social isolation
in later life
(5%)

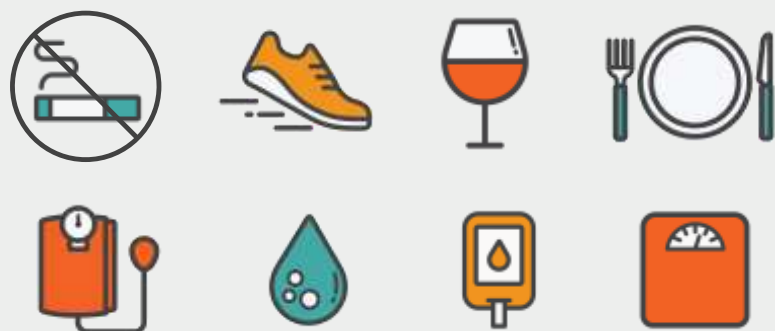


**HOW CAN I PROTECT MY BRAIN
HEALTH?**



PROTECTING OUR BRAIN HEALTH

LOVE YOUR HEART



STAY SHARP



KEEP CONNECTED



Search “**Think Brain Health**” to find out more

REDUCE RISK

Can we support higher risk adults to eat well and exercise?

- Interactive web based intervention with face to face group sessions for people at higher risk of cardiovascular disease.
- Support to eat Mediterranean style diet and exercise regularly.



STEPS TO A HEALTHIER BRAIN



DO NOT SMOKE

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



PROTECT YOUR HEAD

Wear a helmet during sports or when riding a bike.



STAY SHARP

Keep challenging your brain throughout your life and stay socially connected.



LOOK AFTER YOUR HEART

Keep physically active, maintain a healthy weight, and try to limit alcohol to under 14 units per week.



TAKE CARE OF YOUR HEARING AND VISION

Get your eyes and ears tested regularly, and wear a hearing aid if you've been given one.



MANAGE UNDERLYING CONDITIONS

Take steps to prevent or manage high blood pressure, high cholesterol and diabetes.

JOIN THE BIG BRAIN HEALTH CHECK-IN

Explore your brain healthy habits and discover how to look after your incredible brain with the Think Brain Health Check-in.



Visit alzres.uk/checkin to find out more or scan the QR code to take part



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DOES DEMENTIA RUN IN THE FAMILY?

There are two types of genes that can affect our chances of getting a disease:

- faulty genes
- risk genes



RISK GENES VS FAULTY GENES

Risk genes

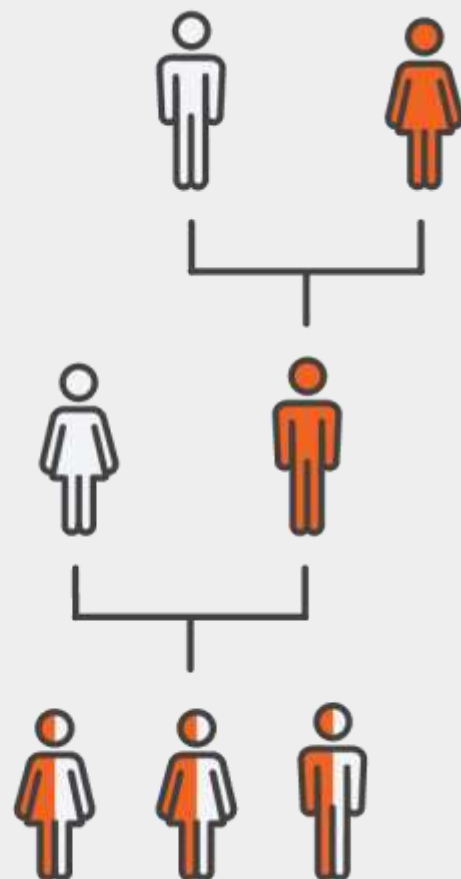
- Increases risk of dementia, but **does not** mean we will definitely develop it – and even if we have risk genes we can still do things to reduce our risk.
- More common in the population than faulty genes.

Faulty genes

- Directly cause around 1% of dementia cases.

There is a **50% chance** of inheriting any gene from your parent.

FAULTY GENES



Grandmother had young onset inherited Alzheimer's.

Her **son** has a
1 in 2 (50%)
chance of inheriting the gene.
He does and develops young onset Alzheimer's.

Each **child** has a
1 in 2 (50%)
chance of inheriting the gene.

LATE ONSET ALZHEIMER'S DISEASE

- Common symptoms include memory loss and confusion **after** the age of 65
- Caused by a combination of factors, **not directly inherited**
- **Over 75 risk genes** associated with Alzheimer's risk
- Lots of things we can do to reduce our risk!
- Genetic tests not available on NHS



YOUNG ONSET ALZHEIMER'S DISEASE

- **Most cases of young onset Alzheimer's are not genetic.**
- Some genes associated with directly inherited young onset Alzheimer's.
- Genetic tests available in some cases through NHS.





HOW IS DEMENTIA DIAGNOSED?



WHY IS A DIAGNOSIS IMPORTANT?



It can enable people to get the right support and treatments.



It can help people to plan for the future and access services.



Have the opportunity to take part in research if they want to.

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WHEN SOMEONE GOES TO A MEMORY CLINIC THEY WILL:



Perform more in-depth memory and thinking tests.



Arrange a brain scan.



Possibly arrange for a lumbar puncture.

DIAGNOSIS

We want to see people get an earlier and more accurate diagnosis of the diseases that cause dementia.





TREATMENTS FOR DEMENTIA





TREATMENTS

- Current treatments available on the NHS help with symptoms only.
- Cognitive therapies can help with low mood, speech and to improve wellbeing.
- New treatments tackle underlying disease to slow it down.

DRUG TREATMENTS

- Donepezil, rivastigmine and galantamine.
- Memantine.
- Levodopa.
- Medications for blood pressure, cholesterol, stroke and diabetes.



NON-DRUG TREATMENTS

- Thinking or talking therapy.
- Physical activity and physiotherapy.
- Occupational therapy speech.
- Language therapy.

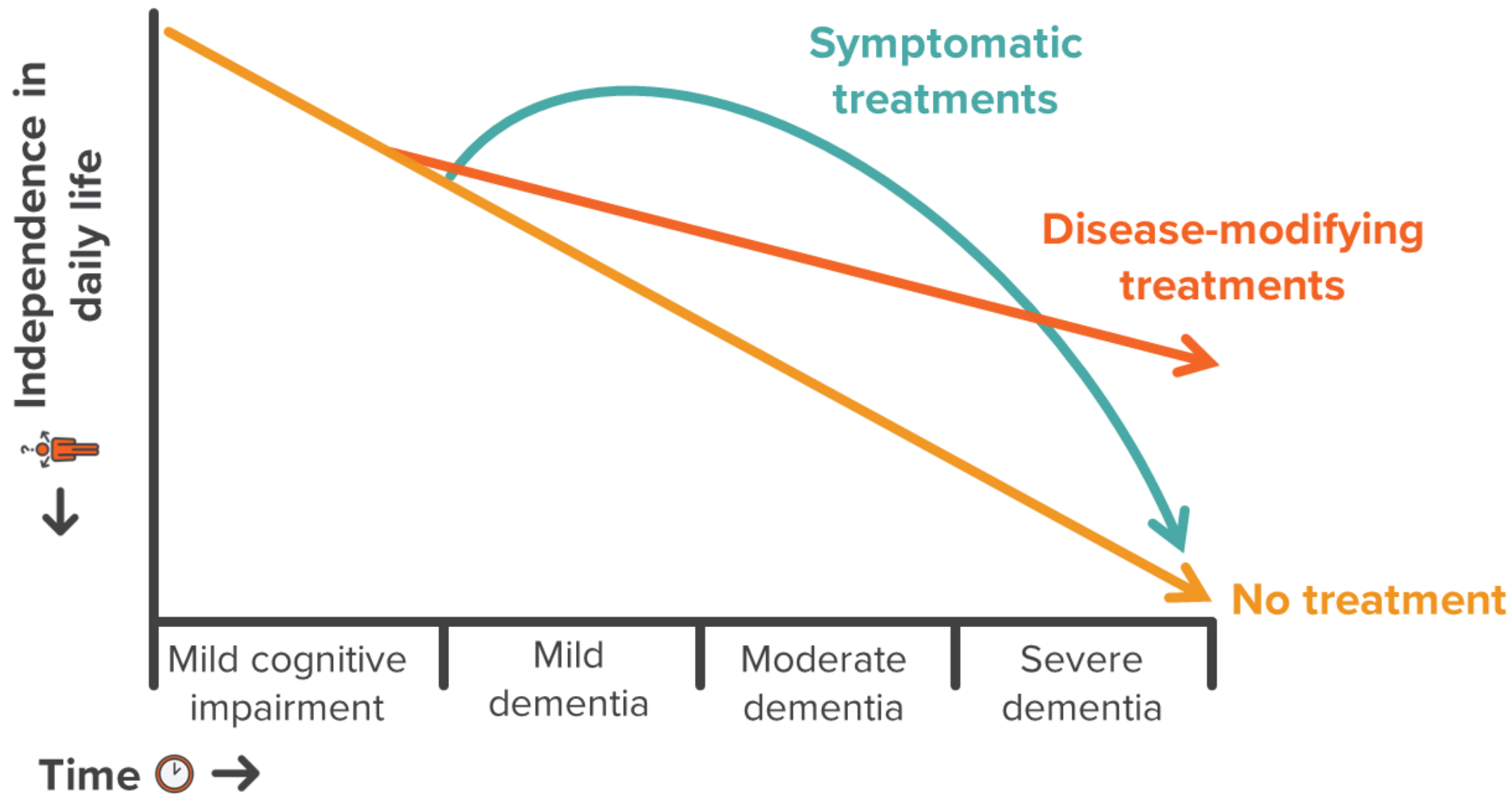




NEW ALZHEIMER'S TREATMENTS



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WHAT ARE LECANEMAB & DONANEMAB?



Lecanemab (lek-an-e-mab) and donanemab (don-an-eh-mab) are drug treatments for Alzheimer's disease.



They have been developed by private drug companies. Alzheimer's Research UK have **not** been involved in the development and manufacturing of lecanemab or donanemab.



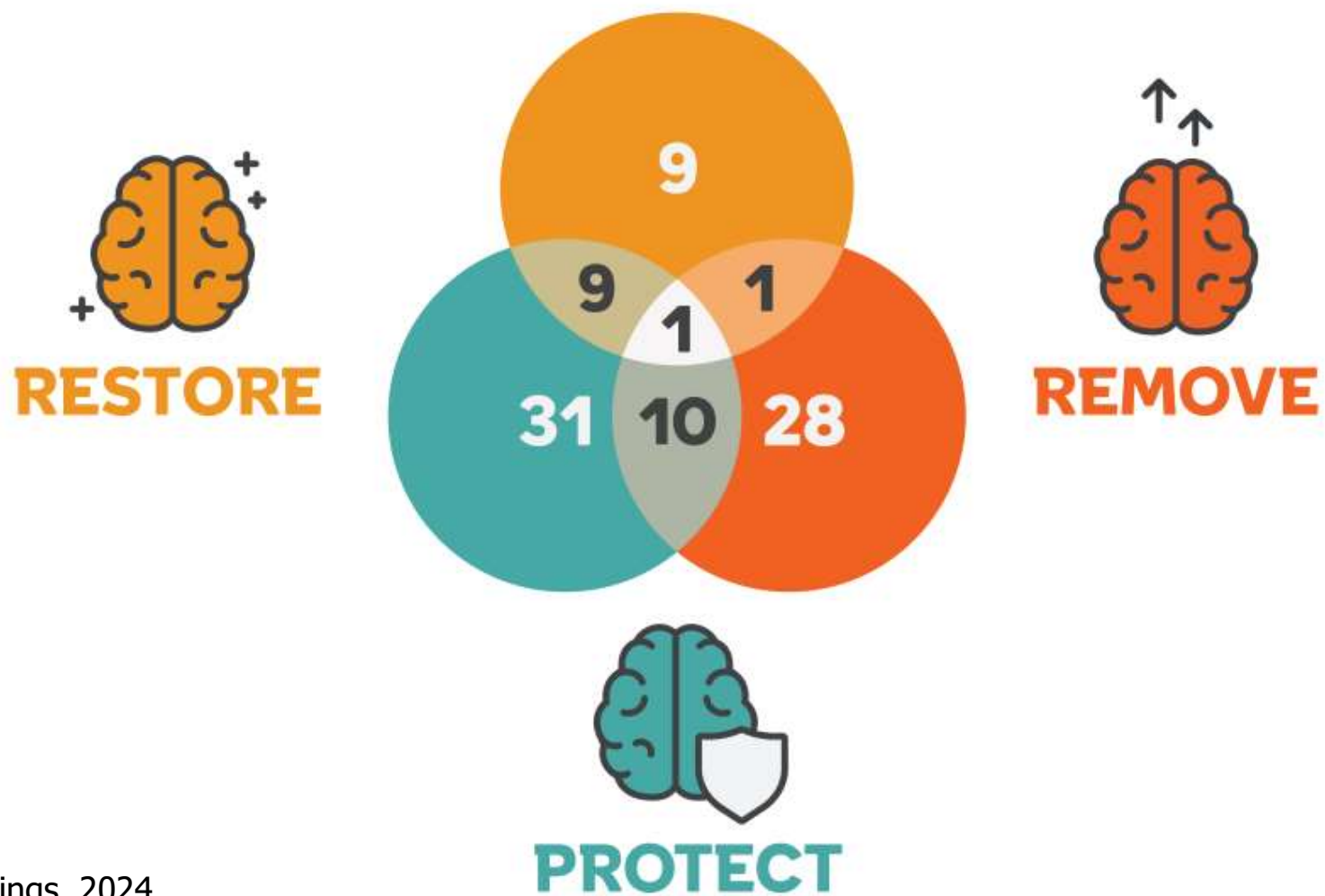
Neither lecanemab nor donanemab are a cure but may allow some people with early Alzheimer's to live independently and with milder symptoms for longer, by slowing the disease down.

ARE THEY AVAILABLE?

- Lecanemab and donanemab were licenced for prescription in 2024.
- They are available **privately** in the UK. We aren't sure about prices yet but it's likely to be at tens of thousands of pounds a year.
- NICE have provisionally rejected both lecanemab and donanemab. As things stand, both drugs are **not** available on the NHS.
- NICE rejected the treatments based on cost effectiveness.



DRUGS IN CLINICAL TRIALS THAT TARGET ALZHEIMER'S DISEASE



Based on data from Cummings, 2024



TAKING PART IN DEMENTIA RESEARCH

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RESEARCH IS AT A TIPPING POINT.

Alzheimer's drug lecanemab hailed as momentous breakthrough

The Daily Telegraph

Date: 30 November 2022
Page: 2



Alzheimer's drug can slow disease

Beginning of the end for condition after clinical trials show treatment reduces memory loss

Ground-breaking Alzheimer's drug may be 'beginning of the end' for disease

Findings of a phase-three clinical trial confirm it slows cognitive decline by 27 per cent in sufferers



'This looks like the real deal': are we inching closer to a treatment for Alzheimer's?

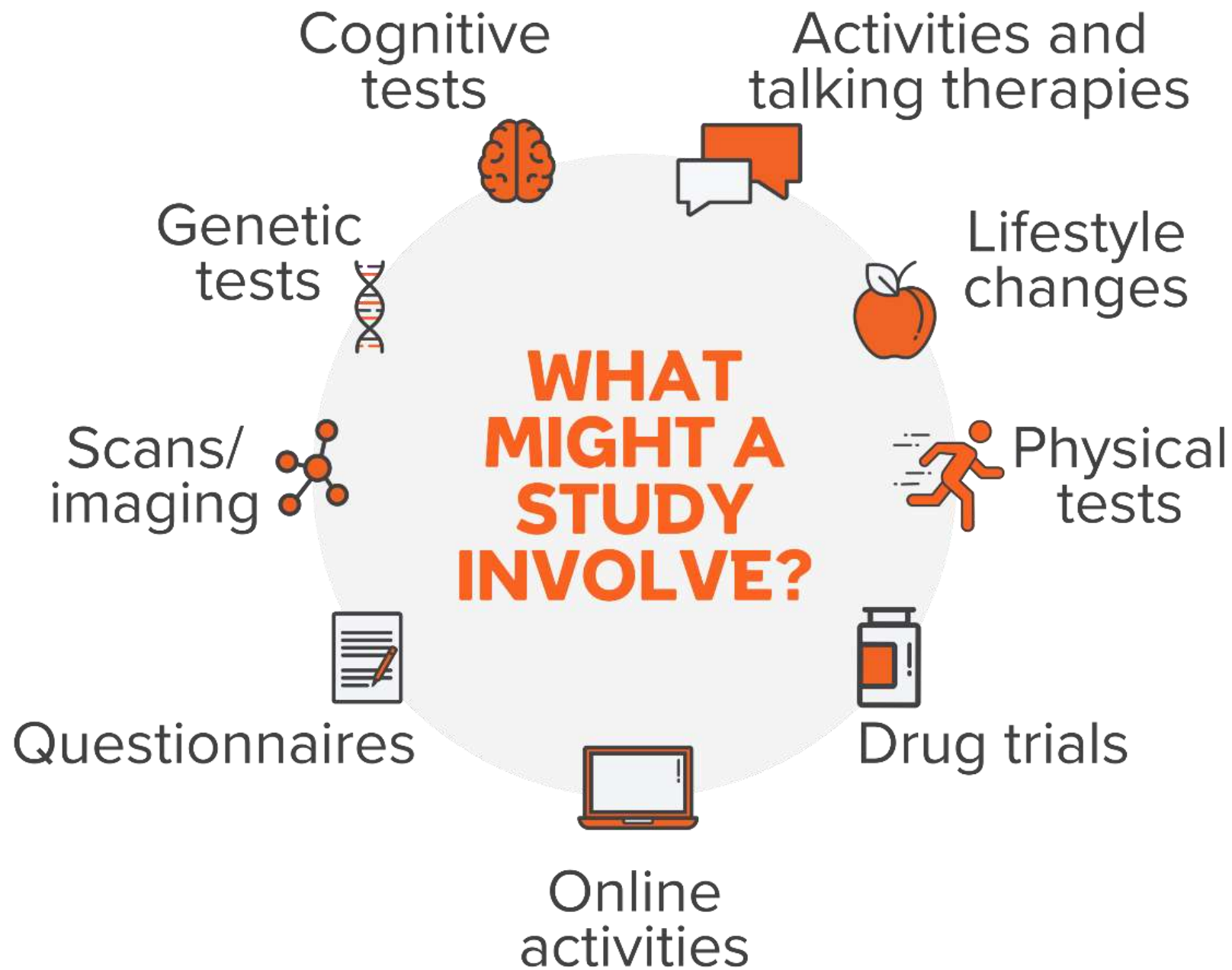


Dementia drug slows decline

● Results show fortnightly drip reverses brain changes ● 'Historic' moment paves way for Alzheimer's cure, say experts

A RESEARCH “DATING” SERVICE

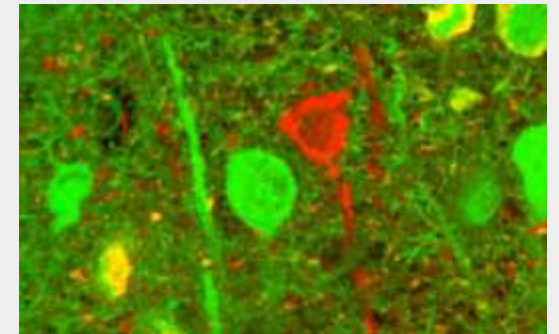
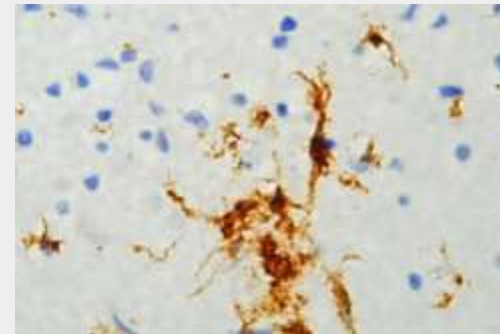
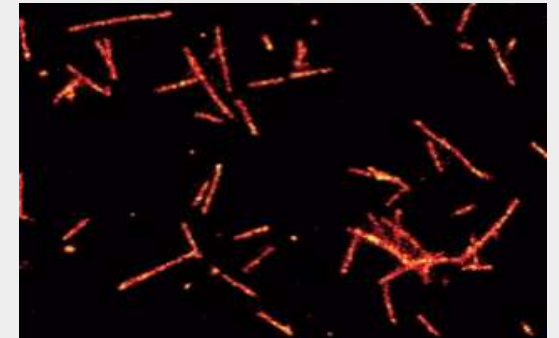
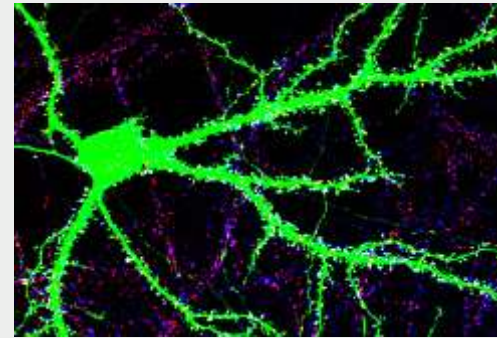
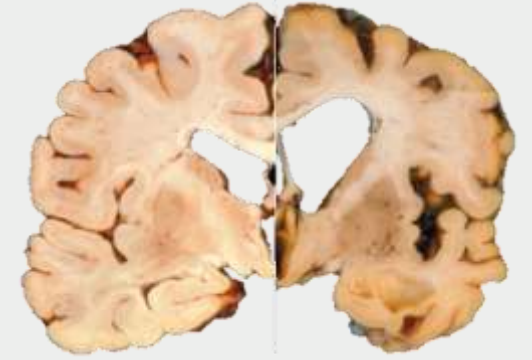
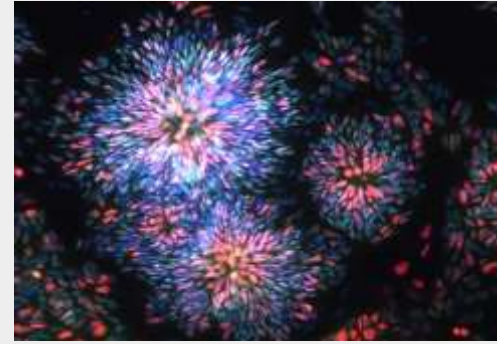




UNDERSTAND

What is happening in the brain to cause dementia?

- What processes are making proteins abnormal?
- What processes are triggered by reduced blood flow?
- What is the role of the immune system?
- When do these processes start?
- How do nerve cells die?





DR PROITSI

Team at King's College London looking for a biological fingerprint in blood that can detect Alzheimer's disease.



DR AMBER JOHN

Researcher based at UCL looking into whether psychological wellbeing can protect against the decline in brain function.

DEMENTIA RESEARCH NEEDS YOU.



Anyone over the age of 18 can sign-up to take part in dementia research studies.

Join Dementia Research is an NHS matching service that matches you with dementia research studies you are eligible to take part in.

You can register to Join Dementia Research by:



Visiting
joindementiaresearch.nihr.ac.uk



Or calling our Dementia Research Infoline on **0300 111 5 111**

**ALZHEIMER'S
RESEARCH UK** The 'For a Cure' logo consists of the words 'FOR A CURE' in white, uppercase, sans-serif font, set against a solid orange rectangular background.



THANK YOU

ANY QUESTIONS?

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