



Can you cut your risk of dementia?

From supplements to brain-training apps, a whole industry has sprung up around products that claim to cut your risk of dementia. **Joanna Pearl** investigates what actually works

AT A GLANCE

- The truth about products that claim to optimise brain health and even prevent dementia
- Behaviours and tactics that are proven to reduce dementia risks
- Practical advice on spotting the warning signs of dementia

Barely a day goes by without an article in the press warning us about foods and behaviour that can increase our risk of developing dementia. Scare stories are rife – but so are rumours of imminent cures.

It's no wonder so many companies are selling products that capitalise on the fear of dementia. From food supplements, to online tests promising to calculate your own risk, it seems there are endless ways to optimise your brain health, improve your memory and even prevent dementia.

Don't buy into this. We've investigated the science behind these products and, as you'll see on the pages that follow, have found the proven ways of reducing your risk don't come in fancy packaging or making grand health claims. Instead, the answer lies in making small but persistent lifestyle changes.

More than 750,000 people in the UK have some form of dementia, with Alzheimer's the most common. Although genes play a part, most dementia isn't inherited. Scientists don't yet fully know how or why it affects our brains, and there are no drugs to stop or reverse it.

A certain amount of brain remodelling is normal as we age. Plenty of people undergo many of the same brain changes as those with dementia, but never show any symptoms. Plus, dementia rates (age for age) are falling, maybe because we live healthier lives. >

ILLUSTRATION: SAM FALCONER

FOOD SUPPLEMENTS UNMASKED

We asked a panel of experts, comprising a dietitian, a GP and a professor of public health medicine, to review the scientific evidence behind vitamins, plant extracts and other 'functional' ingredients commonly used in supplements that are claimed to promote brain health and even prevent mild cognitive (brain and thinking) impairment or dementia. We found little to convince us that they have a benefit.

■ Ginkgo Biloba

Purified extracts of Ginkgo Biloba may interfere with amyloid formation (protein clumps associated with dementia) in animal/lab research, but it's shown to make no significant difference in preventing dementia in healthy people, or those with mild cognitive impairment.

■ B vitamins including B12 and B6 (folic acid)

These can all lower homocysteine blood levels. Homocysteine is an amino acid associated with cognitive (brain) decline – but there's no convincing evidence that this will lower your risk of dementia.

■ Fish oils (DHA)

Results from trials of fish oil supplements have been mixed, but have shown no convincing benefit to memory, cognitive function or risk of developing dementia; although an approved claim is that DHA helps support brain function. Fish oils provide two essential omega-3 fats in our diet, known as eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA).

■ Co-enzyme Q10

Test-tube lab work with this has shown potential, but it hasn't shown any benefit in protecting the brain from cognitive impairment for people taking it as a supplement.

■ Vitamin D

Although the risk of dementia is associated with low levels of vitamin D, it isn't yet known if supplements will prevent it or reduce the risk.

■ N-Acetylcysteine

There is no good evidence that this helps to treat or prevent cognitive decline.

Although EU legislation limits the health claims that can be scientifically proven and made on food supplements' packaging and in marketing, we uncovered some products making potentially misleading claims, as you'll see above right.



EXPERT VIEW

HOW TO SPOT EARLY WARNING SIGNS



Emma Callery,
Which? Elderly
Care website editor

Dementia refers to a group of symptoms that affect the brain (including recognition, memory, language and planning), which

deteriorate over time. While the chances of developing dementia increase with age, the speed of deterioration varies according to the type of dementia and other factors. These include a person's physical make-up, intellectual and social activity in mid-life, and natural reserves that compensate, such as larger brains.

Often talked-about symptoms of dementia include memory lapses.



Bioglan Calamari Gold

£24.99 FOR 30x1,000mg CAPSULES

CLAIMS DHA (fish oils) helps support brain function.

OUR VERDICT Among the 1,000mg of fish oil per dose, the packaging says that these supplements contain ‘more omega-3 DHA (400mg) per capsule than standard capsules’ (with a tiny asterisk showing that this only compares to the company’s other products). There are cheaper fish oil supplements with higher DHA levels around. Any supplement providing just 250mg of DHA per dose can make a health claim to support ‘normal brain function’.

Bioglan (Pharmacare Europe) says: ‘Calamari Oil is richer in omega-3 DHA than typical oils, meaning fewer capsules for the daily DHA to maintain normal brain function. The European Food Safety Authority (EFSA) details health benefits from our higher DHA levels (400mg), such as maintaining normal blood pressure and triglyceride levels.’

Boots Sharp Mind

£7.19 FOR 30 TABLETS

INGREDIENTS INCLUDE Ginkgo Biloba, Co-enzyme Q10, vitamins B, C, D & E

CLAIMS Expertly formulated to maintain brain function, mental performance and memory.

OUR VERDICT This contains a wide range of nutrients and amino acids that are superfluous to the usual UK diet. Our experts were unconvinced of Ginkgo’s effectiveness on memory (see left), or why there were such high proportions of some vitamins (such as B).

Boots told us this is a safe supplement designed to support a normal healthy lifestyle and not to treat or prevent a diagnosed health condition.

BrainSmart Memory

£24.89 FOR 60 CAPSULES

INGREDIENTS INCLUDE Ginkgo Biloba, B vitamins, N-Acetylcysteine.

CLAIMS A significant step forward to improved memory and ultimately in the prevention of dementia and Alzheimer’s.

OUR VERDICT Some of BrainSmart’s health claims don’t appear to be EFSA-substantiated and could be misleading. Despite amending its website and labelling after our contact, we’re pursuing this with the Advertising Standards Authority. We paid in sterling and think BrainSmart should abide by UK advertising rules, despite it saying its US-based company doesn’t fall under UK jurisdiction, or market in the UK. **BrainSmart says:** ‘We think EFSA is behind the curve. Our product doesn’t claim to prevent, cure or treat disease, and scientific data clearly supports its efficacy. We have many satisfied customers and comply with all applicable rules and regulations.’

Efamol Brain Active Memory

£10.99 FOR 30 CAPSULES

INGREDIENTS INCLUDE Fish oils DHA, EHA, Ginkgo Biloba, vitamins B6, B12 & E

CLAIMS Vitamin B12 and folic acid (B6... protect against vascular and brain damage including stroke, which can cause dementia.

OUR VERDICT Some of the health claims don’t seem to have been substantiated by the EFSA and are potentially misleading. The brain needs B6 and B12, but diet alone should give these. See left for our verdict on all these ingredients.

Efamol told us it didn’t intend to mislead consumers, takes the matters we’ve raised seriously and apologises unreservedly. It has now taken down its website temporarily while undertaking a rigorous review of its marketing and claims made for its products.

Older people commonly report frustrating memory lapses for names and words on the tip of the tongue. But these don’t necessarily spell dementia; they can simply be the natural changes of the brain over time. In general, people experience a decline in memory, response times and other cognitive functions as they age, but some stay much the same and can even improve.

What to look out for

The early symptoms of dementia vary and can include the person:

- having difficulty remembering recent events and familiar tasks
- feeling confused about where they are
- getting lost on a familiar journey
- forgetting simple words or using inappropriate words
- becoming withdrawn, suspicious or angry

- putting objects in odd places
- displaying rapid mood swings
- losing interest in activities previously enjoyed.

If you’re worried a relative or friend is developing dementia, get them to visit their GP, ideally with you for support and to help describe the problems. A timely diagnosis means you can make decisions about the future, but it may also alleviate

concerns, as many of the common indicators of dementia could be caused by other factors. For example, losing concentration or withdrawing from people could be caused by anxiety or depression, while being confused could be a side effect of medication. The GP will do physical and memory tests, and then, if dementia is considered a possibility, may refer them to a specialist.

DEMENTIA TESTS under the microscope

The message from our experts is clear: do not screen healthy people who show no symptoms of dementia

Dementia Test app

FREE FOR IPHONE/IPAD/IPOD TOUCH

CLAIMS A complex and precise risk calculator for detecting dementia.

OUR VERDICT The strongest risk factor for dementia is age, yet this brief questionnaire doesn't ask for your age or sex, nor other important health risks. In fact, the company admitted to us that it wasn't even based on the risk calculator it claimed to be on its website. It also can't tell mild cognitive impairment from dementia. Our experts do not recommend it.

The app's developer said: 'Our dementia risk calculator doesn't ask for the sex or age as it isn't important for this type of test. This isn't a diagnostic tool, but it can warn people to visit their GP or spot changes over time.'

Food for the Brain cognitive function test (Plan B: Positive Action against Alzheimer's)

FREE TEST

CLAIMS If the signs of cognitive decline and possible Alzheimer's are caught early enough, then changes in nutrition, lifestyle and supplements may help slow down or enormously delay progression.



OUR VERDICT Our experts took this online screening test and, despite performing above or at the norm for their age, were recommended B vitamins and homocysteine tests – either from their GP or bought privately (discount offered). Neither is based on good evidence (see p32), and the UK National Screening Committee does not recommend dementia screening.

The test provider said: 'The test is an aid to assess cognitive abilities. It's made clear it isn't diagnostic. We consider there is strong evidence that taking B vitamins can slow brain shrinkage and cognitive decline in those with raised homocysteine, which can occur despite a healthy diet. We think that dementia screening should be recommended.'

Re:Cognition 'My Healthy Brain' Wellbeing Assessment

£1,275

CLAIMS A set of investigations for 'complete cognitive care' by 'the brain

and mind experts'. The conditions it covers include mild cognitive impairment and Alzheimer's.

OUR VERDICT Anybody with memory concerns should visit their GP, rather than pay large sums for an assessment like this. Screening of healthy people without symptoms for mild cognitive impairment and dementia isn't recommended by the UK National Screening Committee. While testing may identify people with mild cognitive impairment, many wouldn't go on to develop dementia. There is no warning on Re:Cognition's website of possible harm – including false negatives or positives.

Re:Cognition told us: 'Patients who are worried about their memory or cognition are carefully triaged and the appropriate level of thorough assessment, investigations and treatment carried out under the guidance of our cognitive experts, with counselling regarding potential outcomes and implications.'

Misleading headlines

Can brushing your teeth really ward off Alzheimer's?

A small six-month study of people with mild and moderate dementia showed that having gum disease at the beginning of the study was linked to a six-fold increase in mental decline after six months.

However, it couldn't show whether regular brushing to prevent gum disease could also prevent dementia, as all the participants had it at the start of the study. We also don't know whether gum disease caused dementia or

the decline – other factors could have contributed, such as whether dementia causes people living with it to brush their teeth less well, or people with dementia having worse health.

There is growing interest in whether dental care is linked to physical health, but this tiny study can't prove cause and effect. More research is needed before we can 'ward off Alzheimer's', as the papers claimed. See p8 for even more misleading headlines.



REDUCE YOUR RISK OF DEMENTIA

You don't need expensive products. Small but persistent changes to your lifestyle, starting as early as your 40s, may make a difference to your dementia risk

The top dementia risk factors:

- Diabetes
- Mid-life hypertension (abnormally high blood pressure)
- Mid-life obesity
- Physical inactivity
- Depression
- Smoking
- Low educational attainment



Eat a Mediterranean diet to lower your risk of cognitive decline

Less meat, more wholegrains, fish, fruit and vegetables, and unsaturated fats from oils, seeds and nuts, plus an occasional glass of wine or alcoholic drink provide a mix of nutrients and beneficial phytochemicals (natural plant substances). These generate far more health benefits than one food or single nutrient.



Physical, mental and social activity

There's growing evidence linking physical, mental and social activity – including joining groups in retirement – to a reduced risk of dementia. A study showed that 21% of Alzheimer's cases in the UK are associated with physical inactivity. What's good for the heart is good for the brain. Ideally,

combine the three types of activity and do something sociable and active you enjoy. Combine weight-bearing, cardiovascular and balance-training exercise, such as carrying shopping, doing housework, cycling and making your strolls or walks brisker and longer. But avoid being an 'active couch potato' – you'll be damaging your health if you spend hours in front of the TV, even if you've exercised first.



Stop smoking and drinking high levels of alcohol

Smoking is associated with dementia in 14% of cases. If you can stop, research shows you could lower your risk.

High levels of alcohol are linked to dementia in later life, and non-drinkers also have a slightly increased risk (but this might be due to other factors).



Statins and aspirin

You may have read that statins can help prevent dementia, but they don't prevent cognitive decline or dementia linked to vascular (blood vessel) damage in older people, despite lowering cholesterol and cardiovascular risk.

Aspirin has the theoretical potential to reduce dementia risk, but there's a lack of high-quality supporting evidence. Aspirin can have less welcome side-effects, too.



Training your brain

There is evidence that doing things that get you thinking and responding in mid and later life (such as reading, drawing or chess) are associated with a reduced risk of dementia, but science can't prove cause and effect or what activities work best. Research found a 46% lower dementia risk for those with high mental activity levels.

Companies, such as Lumosity, offer online games that train core cognitive (thinking) abilities such as memory. Computerised brain training may generally offer some cognitive benefits to healthy adults, but it hasn't been shown to delay dementia, and Lumosity was fined by the FDA in the US for claiming its product could prevent dementia. Some experts express concern that brain-training computer games just make people better at the tests.

Research showed 21% of Alzheimer's cases in the UK are associated with physical inactivity

VISIT WHICH? ELDERLY CARE TO READ MORE ABOUT THE EFFECTS OF DEMENTIA AND MEMORY PROBLEMS AT WHICH.CO.UK/DEMENTIA



THE BOTTOM LINE

Don't waste money and time on products such as online and physical tests or expensive food supplements. And don't believe all you read in the papers – question the science. While not all dementia can be prevented, the best evidence shows that the tactics for reducing it and promoting good brain health all relate to lifestyle. Eat plenty of fruit and veg, exercise your body and brain, socialise, don't drink high levels of alcohol and stop smoking.

FIND OUT MORE

On Which.co.uk

- Assistive technology (tech and gadgets for people with memory problems): which.co.uk/assistentech
- Blood pressure monitor reviews: which.co.uk/bpmonitors
- Hearing loss explained: which.co.uk/hearingloss

On Which? Elderly Care

- Dementia and other memory problems: which.co.uk/dementia

Recent articles in Which?

- 'Stay safe from home hazards', May 2015, p34

What do you think?

- Share your experiences at which.co.uk/healthclaims

Other useful sources

- See and hear people share their personal stories of dementia at healthtalk.org. Read a daughter/campaigner's blog at d4dementia.blogspot.co.uk, or a first-hand account of someone living well with dementia at whichmeamitoday.wordpress.com/blog