

ABC Health & Wellbeing

Boosting your brain power as you age

by [Cathy Johnson](#)

Worried about a decline in your mental performance as you age? There's much you can do to reduce the odds.



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The idea we can train our brains to maintain or boost mental performance is hugely popular.

There's been an explosion of websites and phone apps offering exercises to boost your thinking ability and make you "smarter"; and the ABC's recent ratings winner, [Redesign my brain](#), explored a range of techniques used by those working in this field.

While getting smarter appeals to most of us, the fear of mental decline as we age is also considered one of the driving forces behind the growing interest in the field.

Indeed our ageing population is tipped to trigger an epidemic of dementia. But the notion brain training exercises might reduce the risk of dementia is controversial. Dr Maree Farrow, a neuroscientist and research fellow with Alzheimer's Australia, believes the evidence is thin on the ground.

"Certainly some of the companies and websites will say it will help prevent dementia, but basically they're telling fibs," she says.

The good news is there's "quite a lot of research" showing there are things you can do that can make a difference in reducing your risk of dementia – and it comes down to your lifestyle, she says.

"For any individual, we can't say how much doing these things will lower your risk because we don't know what other factors [like genes] are influencing them as an individual."

But evidence suggests 50 per cent of dementia cases could be prevented if we addressed all the lifestyle risk factors we're aware of, she says.

Here are five key things Farrow suggests you do to keep your brain functioning as well as possible as you age:

1) Stay mentally active – do things that make you think and learn

"We know from lots of research that people who do more stimulating activities throughout their life have better brain function and a lower chance of developing dementia."

While there has been much emphasis on crosswords and sudoku puzzles to boost your brain, other activities you could do include taking up a second language, pursuing a course of study, reading widely or learning a musical instrument.

No-one's certain which activities work best. "There's no reason you should sit down and do a crossword every day if you hate crosswords. Choose something else you're going to enjoy. And if you've been doing crosswords for 30 years and are really good at them, it's not going to be as stimulating for your brain as trying something you've not done before. The research suggests it's challenging the brain so it's learning something new or different that's important."

2) Stay socially active – maintain a network of friends and acquaintances

No-one's quite sure why, but staying socially connected with large networks of friends, seems to be good for your brain. "We believe it's probably because social activity is another kind of mental activity. By engaging with other people, you are exercising your brain. You have to think about what you're saying and understand what they're saying. You have to understand facial expressions and body language. Lots of different parts of your brain are working."

Combining your mental and social activities, say by getting together with others for a weekly game of bridge is ideal.

3) Stay physically active – increase your heart and breathing rate

Over the past five to 10 years, the evidence has grown that you need to keep your body active as well as your mind, if you want a healthy brain. It's partly because exercise helps keep your blood vessels in good shape, Farrow says. "The blood vessels in your brain are absolutely vital, and the healthier we can keep those, the better off we'll be. But studies also show physical activity helps with growing new brain cells and new connections between brain cells. It also boosts the levels of some chemicals in the brain that help keep brain cells healthy."

Most of the research has been into the effects of aerobic exercise, the exercise that gets your heart and breathing rate up. But you don't have to join a gym or structured exercise class. Just 30 minutes a day of moderate intensity aerobic exercise like brisk walking is enough to have a significant impact. But exercising longer, or more vigorously, is probably better still.

4) Eat well – have a healthy balanced diet

While there's a huge amount of interest in how eating certain foods will keep your brain young it's the area supported by the least hard evidence, Farrow says.

So far what's clear is there's no magic food that's going to keep your brain healthy; it's about having a healthy balanced diet overall. While some research suggests eating foods like oily

fish, which are high in omega-3 fats is important, Farrow says the evidence is mixed. Likewise, the jury is still out on the importance of antioxidants. "What does come out as being mostly positive is the research on fruit and vegetables. They're the foods most rich in antioxidants."

The best advice is to eat a healthy balanced diet taking particular care to make sure you eat enough fruit and vegetables. And if you drink alcohol, have no more than two standard drinks on any one day. (A standard drink is one that contains 10 grams of alcohol and the volume will vary with the alcohol strength of the drink.)

5) Manage your cardiovascular risk factors – keep your blood pressure, cholesterol and blood sugar levels in the healthy range

The brain might be only 2 per cent of our body weight but it uses 20 per cent of our blood supply. So there's a high demand on our blood vessels to supply the brain with the oxygen and nutrients it needs.

"If your blood vessels in your body are unhealthy, they'll be unhealthy in your brain as well," Farrow says. That means your brain cells get damaged and die and this affects your thinking ability. "In fact, some people have vascular dementia that is primarily due to this type of cell damage. It's due to things like high blood pressure or high cholesterol and not treating them effectively. Over time this damages brain cells more and more."

Studies have shown that people who have high blood pressure and take medication that brings it back to normal, reduce their risk of dementia. While there is lesser evidence of an effect for treating cholesterol and high blood sugar, it's nonetheless recommended for your brain as much as the rest of your body.