

Introduction

What you eat not only affects your body but also your brainpower. Concentration, memory and problem-solving abilities are all affected by poor diet and can be improved by sticking to a brain-friendly diet. So, to keep your brain healthy and stave off disease, make sure you're getting the following foodstuffs and nutrients for optimum brain health.

Water

Your brain is over 80 per cent water, which means the most important rule of good brain health is stay hydrated. Dehydration can impair learning and increasing the amount of water you drink each day can improve concentration and memory. The average adult needs 2.5 litres of water per day, however, it is a commonly held misconception that this should take the form of pure water rather than fruit juices, cordials or tea. In fact, this notion is debunked in a study by Dr Heinz Valtin, of Dartmouth Medical School, New Hampshire, who researched the effects of drinking plain water compared with mixed beverages and found that even weak beer still counts towards your 2.5 litres per day. However, too much caffeine can affect the absorption of Vitamin B, an important brain nutrient and affect the quality of your sleep, which is vital for optimum brain health.

Carbohydrates

The brain obtains the majority of its energy from the carbohydrate glucose. A steady supply of glucose is needed to maintain optimum concentration throughout the day and the best way to get it is to eat unrefined or 'complex' carbohydrates. These take longer to break down, releasing a steady flow of glucose into the blood stream. Recent research by Canadian scientists showed that eating carbohydrate-rich foods improved the memory of elderly adults within an hour of eating.

Find it in: whole-wheat pasta and brown rice, wholegrain foods, couscous and vegetables.

B Vitamins

The B Vitamins are vital for good brain health with B1, B6 and B12 being especially valuable. B1 (thiamine) helps with the transmission of electrical signals within the brain; B6 (pyridoxine) is needed for the production of the neurotransmitter serotonin – which improves mood and is commonly deficient in people suffering from depression and B12, which is a constituent of the myelin sheath, the protective covering for nerve cells which stops electrical interference in the brain. Studies show that a deficiency in vitamin B1 can have a detrimental affect on memory.

Find it in: B1 – wholegrains, nuts, meat and eggs.

B6 – Fish, poultry, eggs, wholegrains and nuts.

B12 – Meat, fish, dairy products, eggs and yeast extract.

Good fats

Despite the fact that we're constantly trying to lose it, everybody needs some fat in their diet. But it's the type of fat that counts. Long-chain fatty acids, known as omega-3 and omega-6 fatty acids are the building blocks of cell membranes and are thus crucial for

brain development, making up 30 percent of the brain's mass. Studies suggest that children who get low doses of Omega-3's when they are babies develop lower IQs and there is growing scientific evidence that the omega-3 found in fish oils may help stave off dementia.

Find it in: Omega-3 and omega-6 fatty acids can only be obtained from your diet. Try salmon, herring, sardines and tuna and cook with extra virgin olive oil.

Iron

Research shows that even a mild iron deficiency can reduce children's ability to learn and studies have found that boosting iron intake improves concentration, mental sharpness and cognitive development. Women in their late teens and twenties are most prone to iron deficiency and one recent American study revealed that women with anaemia perform less well in cognitive tasks.

Find it in: Red meat, dark-green leafy vegetables, sardines, eggs, pulses, nuts, seeds and fortified breakfast cereals.

AND TWO TO AVOID

Saturated Fats

If you want to stave off Alzheimer's keep trim by avoiding saturated fats.

Being overweight increases your chance of developing insulin resistance and research conducted by the University of Washington showed that people with insulin resistance have a 50 percent rise in brain and spinal cord inflammatory chemicals and beta-amyloid protein, both implicated in Alzheimer's.

Find it in: meat and dairy foods, as well as cakes, pastries and deep fried food.

Caffeine

We often think of caffeine as a great pick-me-up, sharpening our minds and battling fatigue but new evidence suggests that rather than perking us up in the morning, what our 7am caffeine hit does is reduce the withdrawal symptoms from going without caffeine through the night. Caffeine aggravates stress by stimulating the production of adrenaline, which causes that jittery feeling. It also affects the quality of your sleep, making it harder to drop off. And research published in the American Journal of Psychiatry found that people who ingest caffeine levels equivalent to five cups of coffee per day have increased levels of anxiety and depression.

Find it in: coffee, tea, energy drinks such as Red Bull and Coca-Cola.