

# Steps to a healthier brain

**The brain needs exercise to stay in optimum health, just like our body. Practising skills will lead to better performance and ongoing mental stimulation will help protect against mental decline.**

## In this article

- Exercise and challenge your brain
- Nourish your brain with a healthy diet
- Enjoy physical activity
- Make "safety first" a priority
- Manage anxiety, stress and depression
- The importance of sleep
- Check your blood pressure, diabetes and cholesterol
- Avoid alcohol and other drugs if possible

## Exercise and challenge your brain

Challenging the brain with new tasks will create new pathways. These pathways become alternate routes when neurons die off in middle and old age. Keeping the brain active also protects individual neurons from injury and old age. Just remember, if you have a brain injury, take on tasks that are realistic. If you have trouble with judgement, you may need to discuss it with others first.

Brain exercise is anything that makes you think. Here are just some examples of how to exercise your brain:

- avoid using calculators
- swap TV for mind games or a book
- play games that involve memory (bridge) or thinking ahead (chess)

## Nourish your brain with a healthy diet

Like any high-performance machine, the brain needs top quality fuel – a well-balanced, low cholesterol, low saturated (animal-fat) diet. As a general rule, good nutrition for the body is good nutrition for the brain:

- Not all fats are bad - unsaturated fat and protein is especially important for developing brains. Fish, a rich source of both, is sometimes called brain food.
- Your brain needs vitamins and minerals that only come from a balanced diet. In particular, the antioxidant vitamins E and C protect the brain.
- Avoid excess food. Reducing calories can help slow age-related brain changes.
- If you must smoke or drink caffeine and alcohol, do so in moderation.
- Glucose is the fuel needed to keep the cells alive and functioning. When your concentration wanes in the late morning or afternoon, eating a snack with natural sugar, such as fruit, can solve the problem.
- The timing of meals is important, particularly breakfast.



### Enjoy physical activity

Regular daily exercise reduces depression and the risk of cardiovascular disease. Anything that increases the heart rate and blood flow is also good for the brain. A simple walk is enough to increase feelings of well-being. A 12-minute bout of exercise (to 85 per cent maximum heart rate) releases serotonin, dopamine, and noradrenaline that can act like antidepressant medications. Exercise can easily be built into daily activities, such as using stairs instead of lifts. Exercise physiologists and rehabilitation specialists can help you reach your goals.

### Make “safety first” a priority

People with an existing brain injury are at greater risk of acquiring another one. Take common-sense safety precautions seriously. This includes wearing seatbelts and sports helmets when needed.

### Manage anxiety, stress and depression

Learning to manage stress will enhance your wellbeing and help prevent very real health problems. Unchecked stress levels can lead to anxiety, which increases the heart rate and blood pressure. This can lead to stroke. Unlike acute stress (the fight or flight response), which is short-lived and normal, ongoing stress has a negative impact on the body and increases the risk of:

- anxiety
- depression
- digestive problems
- headaches
- heart disease
- sleep problems
- weight gain
- memory and concentration impairment.

There are many strategies to enhance relaxation while decreasing stress and anxiety:

- use established relaxation techniques, such as actively tensing then relaxing individual muscle groups
- practice meditation
- exercise to channel internal stress into external action
- mentally let go of things outside your control
- ensure a balance between work and recreation
- take time out for yourself
- see your doctor if you have difficulty managing stress.

### The importance of sleep

Deep sleep allows the brain to repair itself and boosts the immune system. During rapid eye movement (REM) sleep, the brain consolidates information learned during the day. Poor sleep leads to fatigue, immune suppression, lack of memory, poor concentration and mood disorders.

Worrying about perceived problems is the most common reason for not falling asleep easily. If you have trouble going to sleep, try the relaxation techniques above and follow these tips:

- don't have caffeine after noon
- no phone calls or activities after 9 pm
- don't go to bed until you feel sleepy
- don't take one last look at email or phone messages



### **Check your blood pressure, diabetes and cholesterol**

If you have diabetes and high cholesterol, you have four times the risk of stroke. If you have diabetes, you have twice the risk of stroke. Experiencing many mini-strokes can lead to dementia in later life.

### **Avoid alcohol and other drugs if possible**

Alcohol and other drugs affect the central nervous system and can impair a person's ability to think clearly, and control emotions and behaviour. These abilities are often impaired by a brain injury. This means when people with a brain injury use drugs and alcohol, they are likely to experience even greater problems with alertness, memory, problem-solving, and controlling their behaviour and emotions.