

Healthy Living

Fact Sheet



Cholesterol and Mental Performance

Dr John G. Clark, MD

How does cholesterol affect the function of the brain?

Excess blood cholesterol decreases oxygen to the brain cells, increases inflammation to the brain cells, and can impair memory.

What is cholesterol?

Cholesterol is a large fatty molecule made in the liver that is used by the body for making cell walls and hormones, and for the digestion of food; especially fats.

What increases blood cholesterol?

The majority of cholesterol in a person's body is used for the digestion of fats. Blood is water-based and if too much fat is eaten, cholesterol is used as a form of soap to emulsify the fat so that it can be mixed with the water-based blood for transport to where it is needed. The more fat included in your diet, the more cholesterol will be required to emulsify it in your blood.

Encouragement

*"I have more
understanding than
all my teachers,
For Your testimonies
are my meditation."
Psalms 119:99 (ESV)*



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Healthy lifestyle approach

Dietary Considerations

Foods that raise cholesterol include animal products, saturated fats, cooking oils, margarines, butter, refined sugar, and lard.

A diet designed to improve cholesterol levels and mental performance will be a nutrient-rich complex carbohydrate diet consisting of: fresh fruit and vegetables, nuts and seeds (in moderation), grains and beans (free from grease and cooking oils).

Fiber is always beneficial in lowering cholesterol. Fiber that will lower your cholesterol usually comes from grains, beans, root vegetables (like carrots) and fruits.

Exercise

Exercise in the open air and sunlight improves brain blood circulation and lowers the fats in the blood. Vigorous exercise improves the brain's capacity to learn and remember.

Water

Good hydration lowers blood cholesterol by sheer dilution and improves brain performance. Three litres of water a day is recommended.

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Mind–Body Connection

Jenifer Skues
Health Psychologist

Neuroplasticity – Our changing brain

You want to keep your brain healthy so you can optimize your mental performance. Did you know that your brain is constantly changing and growing? After reading this you will have new brain cells and pathways with information you can store and retrieve. Our brain is neuroplastic and, like plasticine, it can be shaped and molded. We have two main areas of the brain that grow new cells that are available for memory function. One is the amygdala which stores emotional memories, and the other is the hippocampus which stores visual and conceptual memories. All memories (emotional and visual) are stored in the five senses; hence a memory can be triggered by any of the five senses. Even if we damage the brain it has the capacity to create new pathways and rewire itself. For example, if someone has a stroke and permanently damages the speech area of the brain they can learn to speak again because the brain could already do this function. It doesn't, however, repair the dead cells in this area. With the effort you put in it builds a whole new speech center in another part of the brain. Now isn't that amazing! The brain is still an unknown frontier that science does not fully understand. We can always improve our mental performance.

Encouragement

*"A man's mind
plans his way
[as he journeys
through life],
But the Lord directs
his steps and
establishes them."
Proverbs 16:9 (AMP)*

How else can I improve my mental performance?

Our brain can grow trillions of new memory cells when we challenge it in positive ways. Like a computer it is the hard drive and we can add and store programs, so just be careful what program you add and store! Did you know that exercise is a great way to grow those trillions of brain cells, making them available to create new pathways and memories. Hence, your mental performance can improve on a daily basis if you exercise regularly. Studies have shown that children who attend an exercise program before starting school, and adults who exercise prior to starting their work day, have more memory available to learn and function more efficiently. Socializing and having fun also stimulates the growth of brain cells, so how good is that! We can also play brain games to improve our brain function (you can access plenty of them on the internet), so what are you waiting for? Research shows that challenging your brain function definitely improves your mental performance. Feeding and watering is also a great help. Keeping your brain hydrated is a powerful way to power brain function. If we don't have enough water, over time the mind becomes confused, can't think straight and the brain can actually shrink. Furthermore, if the brain is nutrient-deprived then mental performance declines and it also affects our mood. Recent studies show that packing in the micronutrients keeps the brain so healthy that you can recover from mental health disorders such as anxiety and depression. Now that has to improve your mental performance.

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Grow Your Brain Tool Kit

Tips to help improve your mental performance

1. **Balancing brain function: Living in the present moment!**

When we get depressed we are left-brained and when anxious we are right-brained; hence we need to balance left and right brain function to improve our mental performance.

Try doing a jigsaw puzzle, it helps to balance and synchronize both left and right brain functioning – a great activity to focus you in the present moment!

Identify and work on changing any thought distortions as these upset brain balance. For example, if you project your fears and catastrophise, try solving the problem in the present.

Getting enough oxygen to the brain is also a life saver – try doing slow, deep breathing, in through the nose and out through the mouth to the count of 5 – focus your attention and breathing in the area of the heart, as this calms and balances brain function.

2. **Improving brain function: Use it or lose it!**

Here are some great activities that can help challenge and optimize your mental performance:

- Try new smells e.g. essential oils or flowers – wakes up your brain
- Exercise in nature and focus on the leaves, trees, birds or sounds
- Have fun, as laughter is the best medicine to get those endorphins (happy hormones) into the brain to help uplift the mood and focus the brain
- Play with your children or with a pet (if you don't have any, borrow them).

3. **Resting your brain: Essential sleep**

Sleep is essential to maintain our mental and physical health. Sleep deprivation plays havoc with your brain function. If you're having problems getting a good night's sleep then try some of the following: have regular doses of magnesium, try some relaxing herbal teas, have a bath with magnesium flakes or Epsom salts in it, don't sit on a computer or be under bright lights before you go to bed, go to bed and get up at the same time, don't use any caffeine drinks, and don't eat rich foods or eat late at night.

4. **Make a NEW START**

Use the following NEW START acronym for a holistic approach to help you to improve your mental, emotional and physical wellbeing:

NEW N = Nutrition; E = Exercise; W = Water; **START** S = Sunshine; T = Temperance (with things that are harmful); A = Air (fresh); R = Rest & Relaxation; T = Trust in God.

Mental performance is dependent on your overall health! It's about the mind-body connection!

Disclaimer: This fact sheet presents principles designed to promote good health and is not intended to take the place of personalised professional care. The opinions and ideas expressed are those of the writers.

Readers are encouraged to draw their own conclusions about the information presented.