

THE WELLNESS HUB

DAILY D.O.S.E
MENTAL WELLNESS EVERY DAY



DAILY DOSE

What is DOSE?

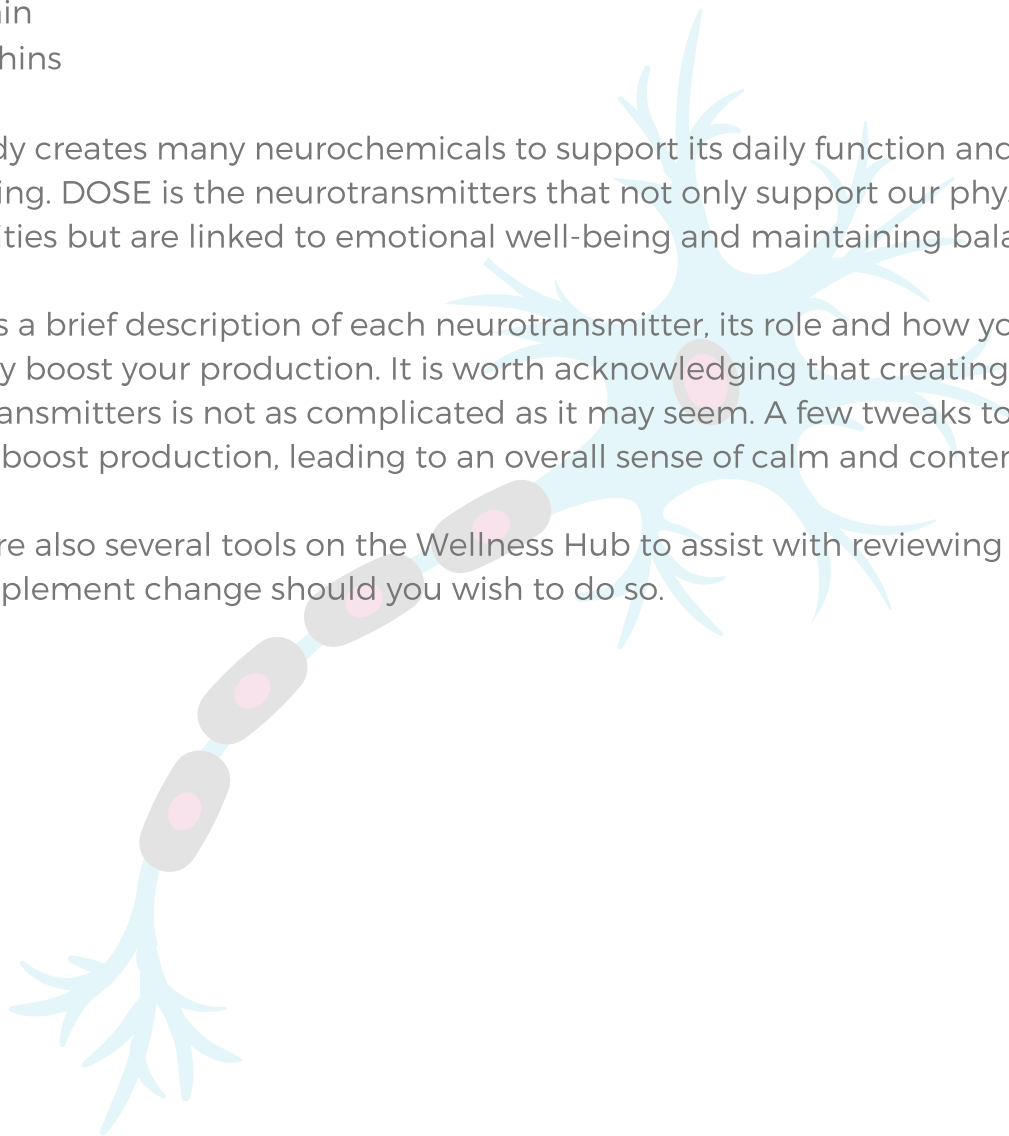
DOSE is an acronym that stands for:

Dopamine
Oxytocin
Serotonin
Endorphins

Our body creates many neurochemicals to support its daily function and overall well-being. DOSE is the neurotransmitters that not only support our physical capabilities but are linked to emotional well-being and maintaining balance.

Below is a brief description of each neurotransmitter, its role and how you can naturally boost your production. It is worth acknowledging that creating these neurotransmitters is not as complicated as it may seem. A few tweaks to your daily life can boost production, leading to an overall sense of calm and contentment.

There are also several tools on the Wellness Hub to assist with reviewing and to help implement change should you wish to do so.



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DOPAMINE

This neurochemical's function depends on your mood and activity. Essentially, it is referred to as the reward chemical and is associated with pleasure. When we tick an activity off the to-do list or run an extra mile, we get a boost of dopamine as a reward. It can also be triggered by something insignificant such as making a decision as the mind recognises the immediate gains (which we may forget over time). However, it has an addictive element that is triggered when consuming pleasurable foods such as chocolate or wine.

Frequent consumption can lead to the desensitisation of dopamine. Unfortunately, this leads to craving more of these highly fatty saturated foods to experience the same 'rush'. This is owing to the natural production of dopamine being slowed down to maintain equilibrium. Instead, look to social interactions for healthier ways to create dopamine.

Dopamine contributes to:

- blood flow
- digestion
- executive functioning
- heart and kidney function
- memory and focus
- mood and emotions
- motor control
- pancreatic function
- insulin regulation
- pleasure- and reward-seeking behaviour
- sleep
- stress response

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How to boost dopamine:

- Consume less saturated foods as this can disrupt natural dopamine production (1).
- Exercising can boost endorphins (the E in DOSE and explored later) and dopamine. Although intensity, type, and frequency remain unclear, preliminary research indicates exercise can increase receptors in the brain's reward area (2).
- Setting small but achievable goals is a simple way to boost dopamine, and this can be anything requiring some thought, such as planning to clear your cupboards (3).
- This also leads on to celebrate any small wins and tell others. When we share our success we reactivate the reward areas of the brain. Consider when you describe a particularly joyful moment - a birthday, a holiday. Do you get a rush? That's dopamine.



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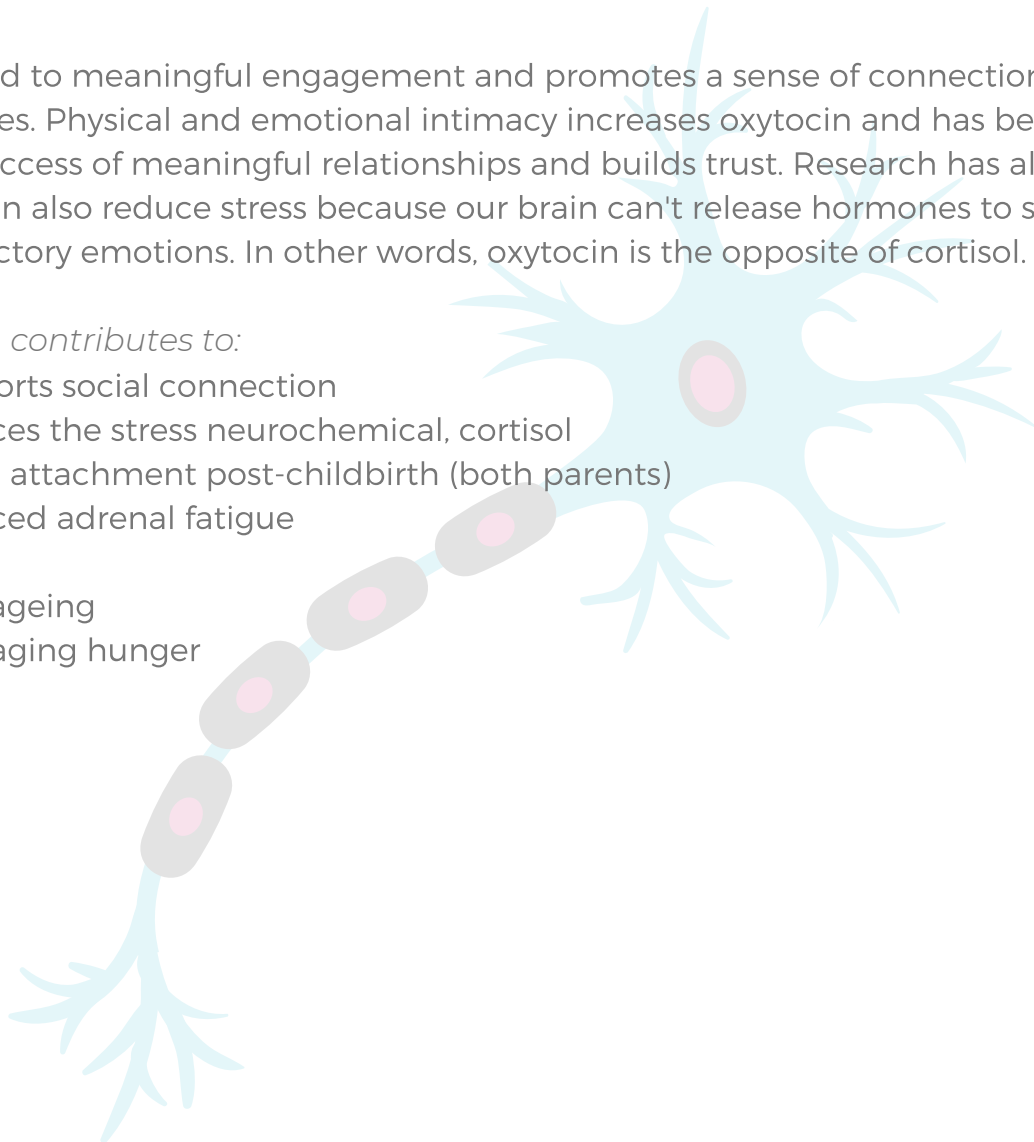
OXYTOCIN

Often referred to as the love chemical because we are most likely to experience it during sexual activity, abundantly during pregnancy and post-birth (to help forget any potential pain!). It has a dual function in that it can act as a neurotransmitter as well as a hormone.

It is linked to meaningful engagement and promotes a sense of connection with our loved ones. Physical and emotional intimacy increases oxytocin and has been linked to the success of meaningful relationships and builds trust. Research has also shown that it can also reduce stress because our brain can't release hormones to support contradictory emotions. In other words, oxytocin is the opposite of cortisol.

Oxytocin contributes to:

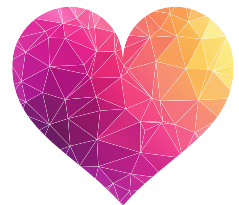
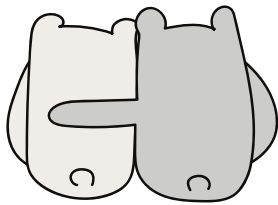
- supports social connection
- reduces the stress neurochemical, cortisol
- helps attachment post-childbirth (both parents)
- reduced adrenal fatigue
- sleep
- anti-ageing
- managing hunger



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How to boost oxytocin:

- Hugging at least 8 times a day helps to boost oxytocin and has a multitude of benefits (4)
- Listening to music is linked to feeling good, particularly if they evoke memories. This triggers the same happy feelings as we are transported back to those special moments (5).
- Spending quality time with loved ones and with mutually supportive networks also boosts oxytocin AND dopamine! (6)



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SEROTONIN

Often referred to as the happy chemical because it is great at stabilising our moods. It is an integral neurotransmitter that influences many bodily functions. Like oxytocin, it has the ability to be both a hormone and a neurotransmitter.

Serotonin is predominantly produced in the gut. It helps aid digestion and regulates our appetite. It has also been shown to play a role in the prevention of Alzheimer's. It is often the precursor to other chemicals such as melanin, which helps us to regulate our sleep cycle and, precedes oxytocin and dopamine. This makes sense because we are feeling calm and rational, we are more likely to engage in activity that has a positive impact. Regarding mental wellness, studies have shown that serotonin not only helps us to feel happy but gives optimism and hope.

Serotonin contributes to:

- feelings of happiness and optimism
- reducing feelings of anxiety and depression
- a healthy gut and digestion
- sleep
- boosting libido
- managing appetite
- prolonging life

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Serotonin

How to boost serotonin:

- Spending time in nature boosts serotonin in several ways. We reconnect with ourselves and our environment, therefore reducing cortisol levels. It also gives us light exposure, increasing our vitamin D (which has been correlated with depressive feelings) (7).
- Meditation/ mindfulness can boost the production of serotonin and reduce cortisol (8).
- Participate in an activity that you enjoy doing; this will increase your serotonin and boost your dopamine too!



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ENDORPHINS

Often referred to as our natural pain killer as it helps us to keep going in the face of adversity. It acts on our opioid receptors triggering feelings of euphoria, manage pain and give a feeling of reward. You have possibly heard of the expression 'runner's high?' This feeling can be attributed to endorphins.

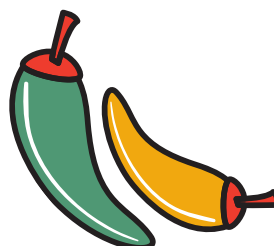
Endorphins:

- create feelings of reward and euphoria
- can act as a pain killer/sedative
- contribute healthier physical well-being i.e. lowering blood pressure
- improves sleep
- increases energy
- contributes weight management
- helps to prolong life

How to boost endorphins:

- Associated with creating physical endurance movement of any kind where the heart rate is increasing* at a healthy pace triggers endorphins (9).
- Being reward-driven, activities such as eating chocolate or having sex can also boost endorphins (10).
- Spending time laughing is a great way to boost endorphins (11).
- There is a great of research that demonstrates that altruism can boost endorphins and dopamine levels. Being kind is therefore good for you(12).

*It is your responsibility to seek medical advice if you have not exercised previously or suffer from any conditions that place you at risk of injury.



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When combined these neurotransmitters help manage anxiety, depression, stress, weight and pain. Also helping to create memories, learning and promoting.....



Motivation



Kindness



Optimism



*Joy and
Connection*



Confidence

WOW!

Happiness



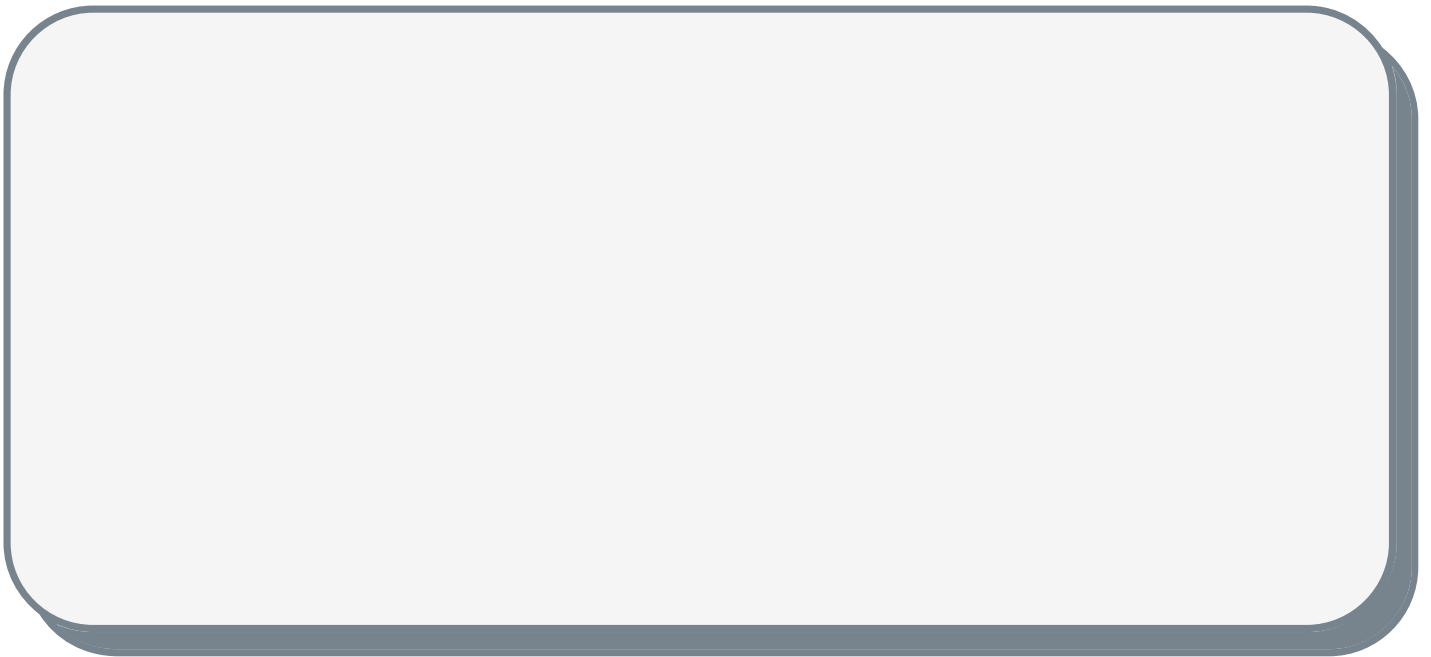
Courage



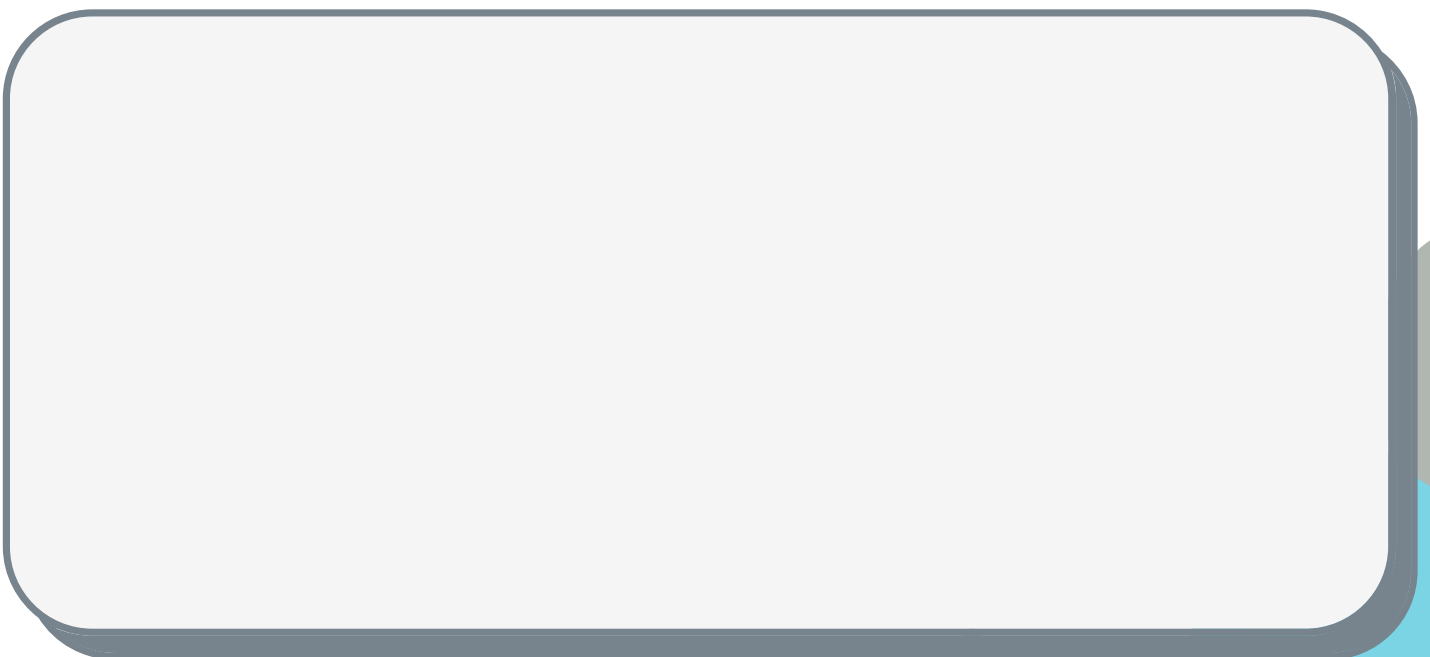
D.O.S.E. JOURNAL

Take a moment to reflect on your day, specifically-actions/ interactions/ thoughts that have produced the desirable D.O.S.E. neurochemicals. This record is particularly useful for those moments when you are not feeling mentally strong. What strengths are apparent to you?

Positive thoughts



Positive actions

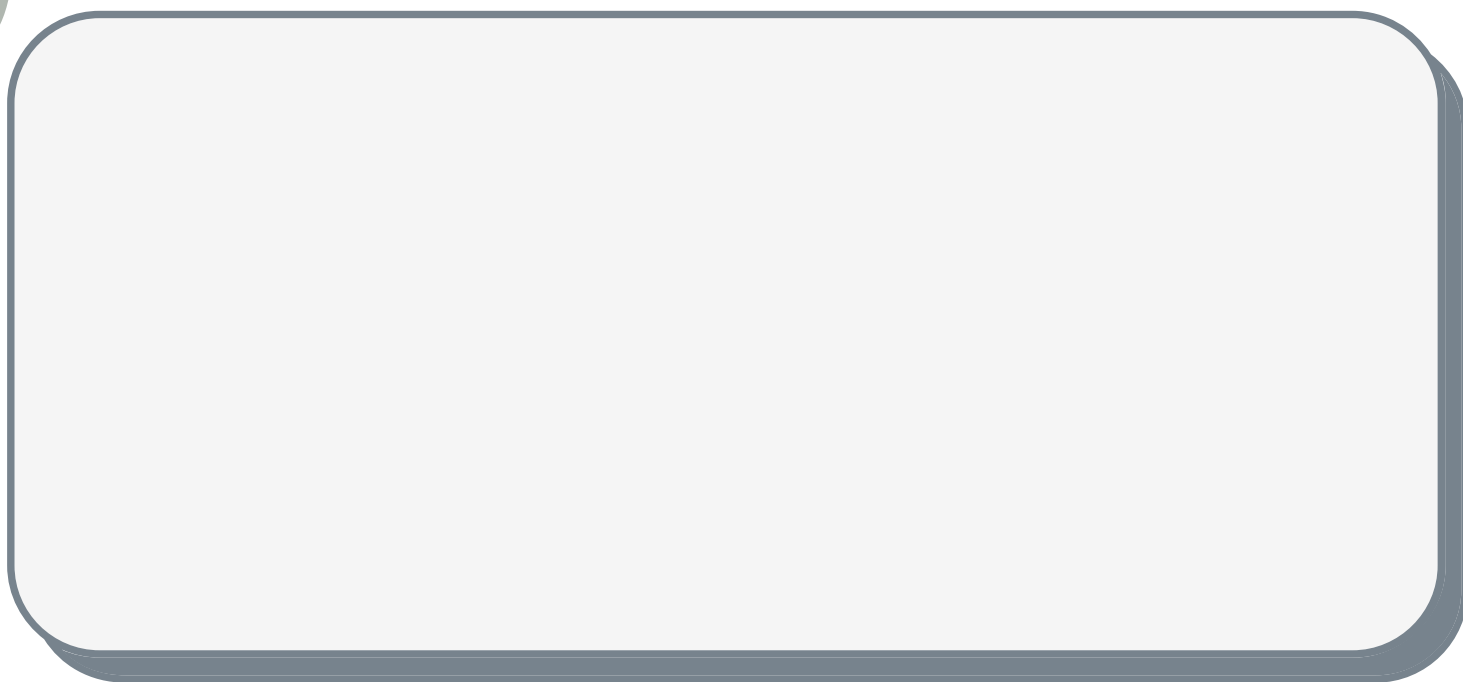




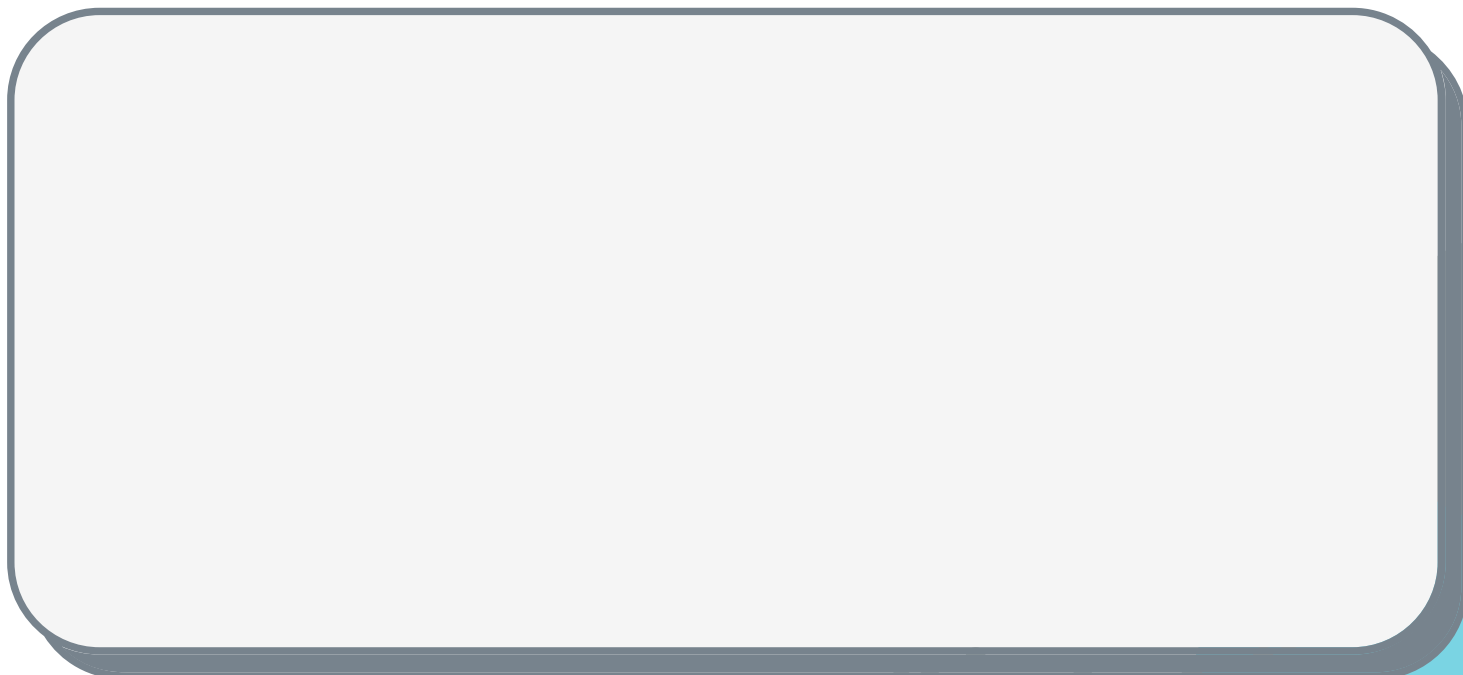
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Positive interactions



My strengths





TIPS FOR WELLBEING

Focus on facts

You can help to alleviate negative thoughts by focusing on the facts: speculating or becoming engrossed in what-if scenarios to help reduce cortisol.

Reflection

Take a few moments each evening to make a note of what you have achieved or enjoyed. This can be small or big. This will help to stabilise your mood and support a better night's sleep.

Being kind

To yourself and others can be immensely beneficial. Accept what is not in your control and let go of any negative emotions as they can manifest in physical ailments.

Keep a schedule

Our mind thrives when we have routine because it is free to learn and respond to events. But be flexible because change can be required. The goal need not change, just the path.

Connection

Maintain contact with uplifting peers who will contribute to your serotonin production. There will always be friends 'in need': support them while protecting your own wellbeing.

Enjoy more

As long as you are not doing anything that compromises your health, wealth and those important to you, then do more of the things you enjoy the most.

Check your thoughts

Notice when negative thoughts are creeping in. Ask yourself what is the value of it/ what can you think instead? What difference do you notice? This will help you regain control of your thoughts.

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References

- 1) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3596409/>
- 2) <https://pubmed.ncbi.nlm.nih.gov/11735681/>
- 3) <https://www.psychologytoday.com/gb/blog/the-truisms-wellness/201610/the-science-accomplishing-your-goals>
- 4) <https://www.healthline.com/health/hugging-benefits#3.-Hugs-may-boost-your-heart-health>
- 5) <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0070156>
- 6) <https://ndnr.com/naturopathic-news/oxytocin-and-dopamine-the-rewards-of-sociability/>
- 7) <https://www.takingcharge.csh.umn.edu/how-does-nature-impact-our-wellbeing>
- 8) <https://www.therapy-directory.org.uk/memberarticles/how-to-naturally-increase-serotonin-in-the-human-brain#:~:text=Research%20studies%20have%20shown%20that,GABA%2C%20endorphins%2C%20and%20melatonin.>
- 9) <https://www.health.harvard.edu/mind-and-mood/exercise-is-an-all-natural-treatment-to-fight-depression>
- 10) <https://www.healthline.com/health/how-to-increase-endorphins#laughter>
- 11) <https://www.jneurosci.org/content/37/25/6125>
- 12) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4917056/>