



## Your Chemical Chorus

Get to know your brain and body chemistry

You have a 'chorus' of body chemicals singing in the background that influence your moods, feelings and behaviours. This quirky bunch of neurotransmitters and hormones make a significant impact on your daily lifestyle choices.

### Dopamine

Dopamine is a multi-purpose chemical that is both a neurotransmitter and a hormone.

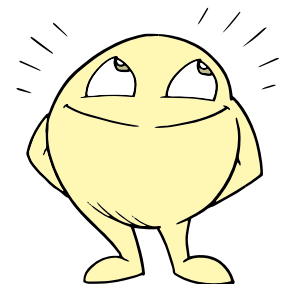
In the brain, it is released by nerve cells to help them transmit electrical messages to each other, which is critical for healthy brain and nerve function.



Dopamine is known as the 'pleasure hormone' because it helps you recognise and act on opportunities for personal reward such as using social media, eating tasty food or achieving short-term goals. Dopamine drives you towards reward behaviour by controlling body movement and keeping your brain sharply focused on doing the pleasurable activity.

### Serotonin

Serotonin is another versatile chemical that regulates sleep and appetite, and promotes healthy digestion.



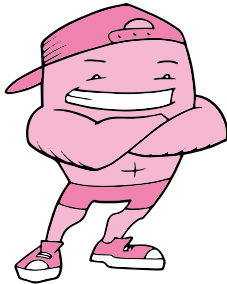
It is known as the 'happiness hormone' because it is associated with long-term feelings of contentment and resilience that come from maintaining a positive mindset. Serotonin supports you to use your willpower to curb bad habits and work towards long-term goals.



# Meet your **CHEMICAL CHORUS**

## Endorphin

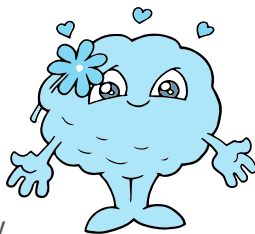
Endorphins make you feel good all over when you do something physically active like walking, running, playing, singing or gardening. It also acts as a mild analgesic (painkiller) to reduce the discomfort you feel from working your muscles.



Exercise delivers many health benefits and Endorphins are nature's way of rewarding you for your efforts!

## Oxytocin

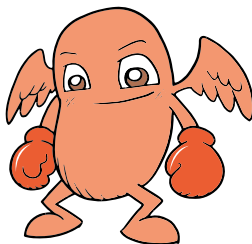
Oxytocin is often called the 'hugging hormone'. It is released when you emotionally connect with a person (or pet) giving you both a lovely feeling of wellbeing.



Oxytocin is at the core of the social bonding process between parent and child, friends and lovers. It helps you develop trust in another person and can reduce stress and anxiety.

## Adrenalin

Adrenalin is the 'fight or flight' chemical that helps your body respond to stressors such as physical or mental threat, bright lights, intense exercise, excitement and extreme temperatures.

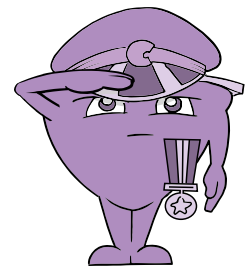


In stressful situations, Adrenalin is released from your adrenal glands into your bloodstream within 3 seconds. Blood flow increases to your muscles and heart, your pupils dilate and your lungs expand. Adrenalin works with Cortisol to mobilise your short-term energy stores (i.e. glycogen).

## Cortisol

Cortisol is a busy steroid hormone with lots of functions. In times of stress, it takes command of a troupe of hormones, cells and organs to prepare your body to escape or stay and deal with the situation.

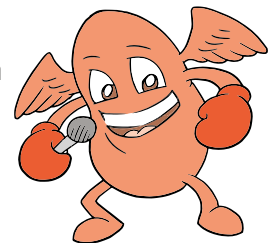
Cortisol travels in your blood and interacts with cells via their receptors. Receptors are like power sockets that allow Cortisol to 'plug in' and take over the function of the cell.



## The battle that rages within

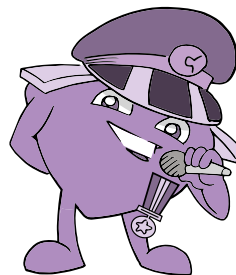
When the hypothalamus in your brain registers stress (imagined or real), Adrenalin launches the frontline physiological response.

Cortisol brings up the rear by releasing energy, dialling down non-essential functions such as digestion and the immune system, and enlisting cells to assist with the war effort.



Relentless low-level stress (good or bad) is dangerous because it keeps Adrenalin and Cortisol marching through your body. This can damage

delicate blood vessels and arteries, which increases your risk of heart attack and stroke. It also upsets your digestion and waste systems, and leaves you open to infection and disease.



Cortisol overload also breaks down muscle mass and makes you crave sweet food and drinks – which starts a whole different kind of battle!

**Try to be more conscious of the impact that your Chemical Chorus is having on your daily lifestyle choices.**

