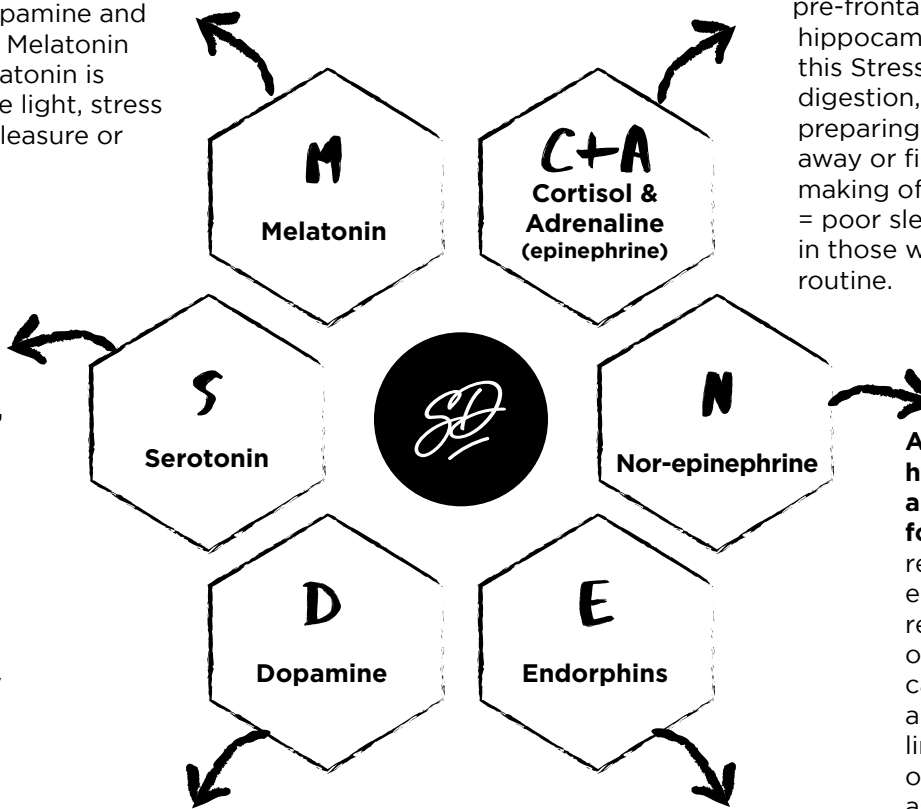


# BODY CHEMICALS MADE SIMPLE

**Melatonin is a hormone that regulates the sleep-wake cycles.** High Dopamine and Cortisol inhibits Melatonin production. Melatonin is inhibited by blue light, stress and excessive pleasure or stimulation.

**Epinephrine - is your energy drug.** With high levels early in the morning it gets you out of bed, with the energy for 'big work', courageous conversations, primed for anything that will cause you 'limbic friction' (challenge). Dopamine levels track with epinephrine ensuring you have the energy and motivation to take on the new day and big activities. **Cortisol, is primarily associated with stress and anger. Fight or flight.** Both increase blood pressure, blood sugars and heart contractility (squeeze value). Cortisol can induce a change in your vision to 'tunnel' (from 180 degrees to 70-90 degrees - to focus on what is dangerous), reduces hearing (auditory exclusion) and may reduce cognitive ability (brain function transfers from

pre-frontal cortex to the hippocampus - limbic). I call this Stress Stupid. Decreases digestion, sexual function, preparing the body to run away or fight. Inhibits the making of Melatonin - stress = poor sleep. Symptomatic in those with a hectic routine.



**Plays an important part in regulating mood, appetite, sleep and dreaming.**

Low Serotonin may be linked to depression and anxiety. High levels of Serotonin ensure the body is 'primed' to release your sleep drug, Melatonin. It signals a 'completed' day; one of achievement and signals to the body that one may now sleep.

**Highly addictive,** more so than nicotine and alcohol. This is your foraging and motivation drug. It drives you to move to seek pleasure; I refer to this as your 'more of' drug. It has links to overeating, drinking, gaming and social media addiction.

**Masks pain, helps us to 'push' through in difficult circumstances.** 'The runners high'. From the Morphine family, natural opiate-peptide chemicals released during periods of strenuous exercise, emotional stress, pain and orgasm. Can also release stress and create a feeling of wellbeing.

**Associated with hyper-alertness, and essential in focus.** The body releases Nor-epinephrine, in response to feelings of excitement, caution or anxiousness. It is linked to high levels of Dopamine and associated poor sleep hygiene. On waking, the body may preempt a 'bad day' due to your poor sleep, releasing Nor-epinephrine, priming you to be hyper-aware, sensitive and cautious. Pre-limbic.

## NEUROSCIENCE

**"THERE ARE FOUR HAPPY CHEMICALS BEHIND EVERY GREAT LEADER"**

*Simon Senek*

**Selfish chemicals** - Dopamine and Endorphins help us get things done and make it repeatable.

**Selfless chemicals** - Serotonin and Oxytocin builds trust and loyalty through affirming words or actions. They strengthen our social bonds and create meaningful connections and collaboration.