

Meet Your Happy Chemicals

based on the book

Habits of a Happy Brain

Retrain Your Brain to Boost Your Serotonin, Dopamine, Oxytocin and Endorphin Levels

by Loretta Graziano Breuning, PhD
InnerMammalInstitute.org

Dopamine energizes you when you find a new way to meet a need. It's the brain's signal that a reward is at hand. The great feeling motivates the body to invest effort in pursuit. Dopamine is triggered by things that promote survival in the state of nature (food, mating opportunity), and anything associated with rewards you've experienced before. Neurons connect when dopamine surges, which wires you to expect a reward in similar settings. These connections trigger the good feeling with each step closer to a reward. This motivates us to do what it takes to meet our needs.



Serotonin rewards you with a good feeling when you gain a social advantage. Mammals compare themselves to others to avoid conflict. They make careful decisions about when to assert and when to defer. Serotonin is released when a mammal sees itself in the one-up position. Serotonin is not aggression but a nice calm sense that "I will get the reward." The good feeling motivates a mammal to seek social advantage again. We can easily see this in our social rivals, though we tend to overlook it in ourselves and our allies. Each experience of social dominance connects neuron that tell you where to expect more.



Oxytocin is the good feeling of social trust. A mammal can relax and lower its guard in the presence of trusted others. Touch and trust go together because those close enough to touch you are close enough to hurt you. The mammal brain makes careful decisions about when to release the good feeling of trust. If you step away from your trust bonds, oxytocin falls and you feel unsafe. We mammals are born into a surge of oxytocin, which creates attachment. Neurons connect, so the good feeling turns on when you see things related to past trust. Mammals build in-group trust through awareness of common threats.



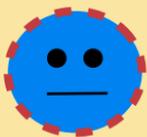
Endorphin masks pain with euphoria. This allows an injured mammal to do what it takes to protect itself. Endorphin evolved for emergencies, not to flow all the time. The good feeling soon passes because pain is vital survival information. Pain tells you not to touch fire or run on a broken leg. Fortunately, small endorphin releases are stimulated by the exertions of laughing and exercise. "Runner's high" only happens if you run to the point of pain. We are designed to laugh, not to inflict pain on ourselves.



* * * * **But it's complicated** * * * *

Habituation

The brain saves its happy chemicals for new rewards, and habituates quickly to old rewards. This is why we're often disappointed by the same-old thing, and why we're always seeking. Natural selection built a brain that rewards you for meeting survival needs, not for just sitting around. Survival is defined in a quirky way, alas: your mammal brain cares about the survival of your genes, and it relies on neural pathways built in youth.



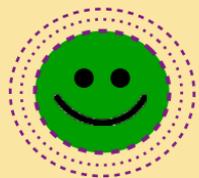
Cortisol

Cortisol commands attention when a threat is perceived (internal or external). It creates the feeling that you will die if you don't make it stop. Each cortisol spurt connects neurons that turn on the bad feeling when similar circumstances are met. Disappointment triggers cortisol. This promotes survival by alerting a mammal when expectations are not met, so it stops investing energy in an unrewarding pursuit.



Myelin

Some neural pathways become superhighways thanks to myelin. It coats neurons, so they're super-efficient conductors of electricity. Myelin is abundant in the brain before age eight, and during puberty, so the experiences of those years become your brain's infrastructure. When electricity flows effortlessly down your myelinated neurons, you feel like you know what's going on. Leaving your myelinated pathways can feel like a survival threat, despite your best intentions.



Mirror Neurons

When you see another mammal get a reward or risk pain, mirror neurons fire in the same pattern as if you were having the experience yourself. These special neurons mirror what you observe in others. Repetition build neural pathways, so without effort or intent, a young mammal wires itself to seek rewards and avoid pain in the ways it observes in those around it.

