

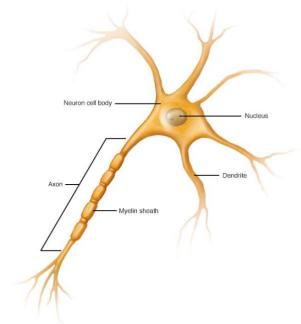
REWIRED – AS GOD INTENDED

Understanding the Critical Intersection of Addiction Recovery and Brain Neuroscience

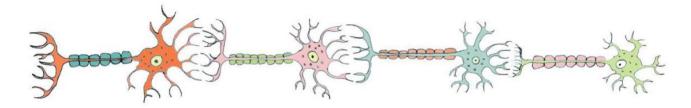
Dr. Dave Currie

What are Neurological Pathways

- A Neurological Pathway is a series of cells called neurons that connect and interact repeatedly in a sequence that coordinates behavioural, cognitive and emotional patterns. As they are repeated with reoccurrence, the become more familiar – like wellworn paths. The greater the repetition – the stronger the path.
- The basic parts of a Cell or Neuron are the Nucleus
 (hub or brain), Dendrites (many information receivers),
 the Axon (one information sender) and the Myelin
 Sheath (allows electro-chemical impulses to transmit
 quickly and efficiently along the nerve cells).



- Neural pathways, comprised of neurons connected by dendrites, are created in the brain based on our habits and behaviors. The number of dendrites increases with the frequency a behavior is performed. There are about 100 billion neurons in the brain.
- With over **25 quadrillion potential routes** any single thought could take, it's no surprise that every neural pathway you have is as unique as your fingerprint. Think about how amazing God has created you to be. That is 25,000,000,000,000,000 options.



Understanding the Reward Cycle in the Brain

- 1. The **Porn-Masturbation-Orgasm Cycle** (PMO) with repetition creates a strong and vibrant neurological pathway. It is said to be stronger than a cocaine addiction and shapes your mind and behaviour in addictive patterns that are over time involuntary. It becomes impulsive.
- 2. Why does the PMO Cycle become **IMPULSIVE**, **INVOLUNTARY** and **UNCONTROLABLE**? It's the Pleasure Principle. The brain is wired (the Limbic System) to avoid pain through FEAR to run

from any life-threatening situations or threats. The brain is also wired to pursue pleasure through DELIGHT to run to or repeat behaviours that feel life-preserving or enjoyable – food, water, sleep, sun or shade, fun, social connection, sexual release. This REWARD CENTER is the Ventral Tegmental Area (VTA – located in the lower-central part of the brain).

- 3. The reward pathway of the brain is connected to areas of the brain that control behavior and memory. It begins in the ventral tegmental area (VTA), where neurons release dopamine to make you feel pleasure. The brain begins to make connections between the activity and the pleasure, ensuring that we will repeat the behavior. Sometimes this pathway is helpful but other times, it can be devastating. For example, certain drugs can trigger the reward pathway and over time, an addiction can develop.
- 4. There are primarily Four Regions in the Brain (all central) that are part of the REWARD PATHWAY all get DOPAMINE signaled and released from the center of the Limbic System:
 - a. Amygdala: Controls and assesses emotions, feelings and sensations
 - b. **Nucleus Accumbus:** controls motor functions, what actions you do to repeat the pleasure.
 - c. **Pre-Frontal Cortex:** focuses attention, plans actions like the CEO of the Brain
 - d. **Hippocampus:** controls the function of memory.

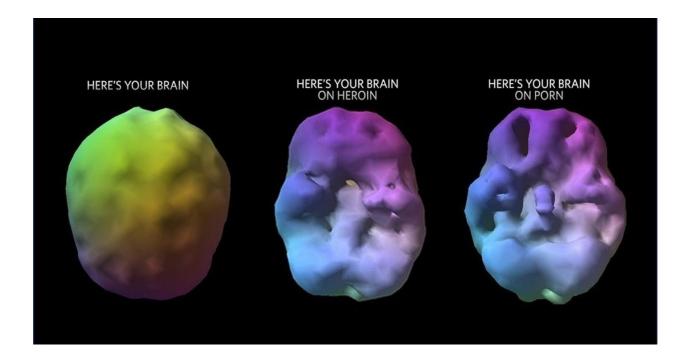
The REWARD CENTRAL COORDINATION SAYS:

"THIS WAS GOOD, LET'S DO THAT AGAIN!!!"

5. **DOPAMINE**: Like Motivational Dynamite, is known as the "feel-good" chemical hormone of the brain. It gives you a sense of pleasure. It also gives you the motivation to do something when you're feeling pleasure. Dopamine sent to various parts of the brain to coordinate the repetition of pleasurable behaviour.

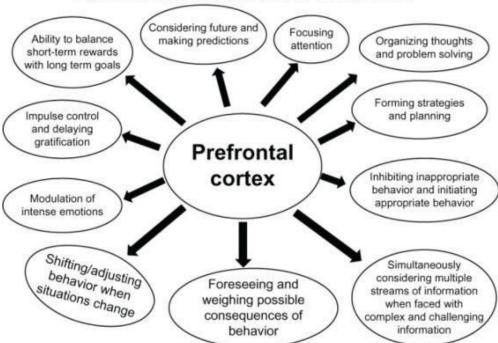
Your Brain on PORN – What Happens...

- 1. **ATROPHY** waste away, especially as a result of the <u>degeneration</u> of cells, gradually decline in effectiveness or <u>vigor</u> due to <u>underuse</u> or neglect. Instead of brain impulses moving as fast as the speed of light, the start slowing down like being clogged or moving through sludge.
- 2. **SHRINKING** Shrivel, decline, wither, deteriorate, waste away



- 3. Moral disregulation
- 4. Reward center (limbic system) hyjacks the controls to the brain and thus choices and behaviour. Goal more dopamine hits
- 5. New neurological pathways driven by porn's reward center firing consistently bypass the value/morality part of the brain
- 6. Ceo pre-frontal cortex gets displaced, ignored or cut off from our behaviour and thoughts

Executive human brain functions



- 7. Non-dominant hand exercises are excellent for forming new neural pathways, as well as strengthening the connectivity between existing neurons. For instance, if you're right-handed, try brushing your teeth with your left hand and then try it while balancing on one leg for a double neuroplasticity bonus.
- 8. The MIRACLE of GOD-INSPIRED PLASTICITY
- 9. How long does it take for neuroplasticity to work? How long does it take to rewire your brain? It takes between 18 and 254 days for someone to form a new habit. As for averages, creating a new habit takes an average of 66 days.
- 10. NOTE: A new habit is different than rewiring required in overcoming an ADDICTION that is so incredibly highly REWARD based.

most of the neurons in the central amygdala are involved in the reward circuit,

Psalm 139: Fearfully and wonderfully made

Understanding Reward Pathways in the Brain from Khan Academy (8:25 Video) https://youtu.be/YzCYuKX6zp8

Understanding Your Brain on Porn from Soul Refiner (Article with Video – 2:39)
<a href="https://blog.soulrefiner.com/this-is-your-brain-on-porn?utm_source=KingdomWorks+Newsletter&utm_campaign=486868fdfe-when trying harder isnt enough COPY 01&utm_medium=email&utm_term=0 68a2b88e24-

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