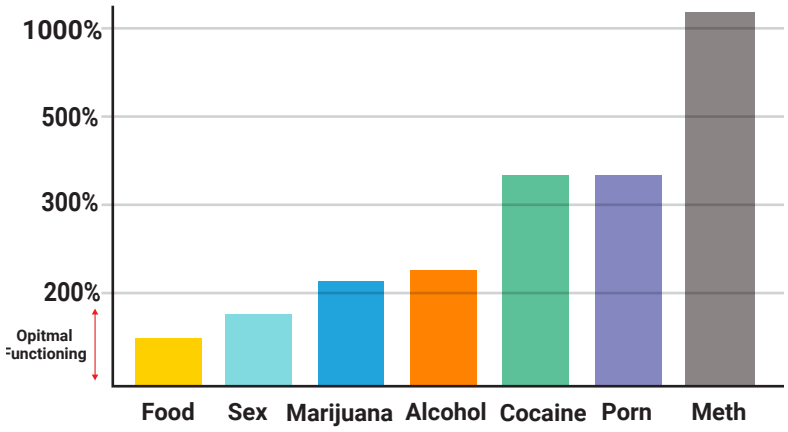
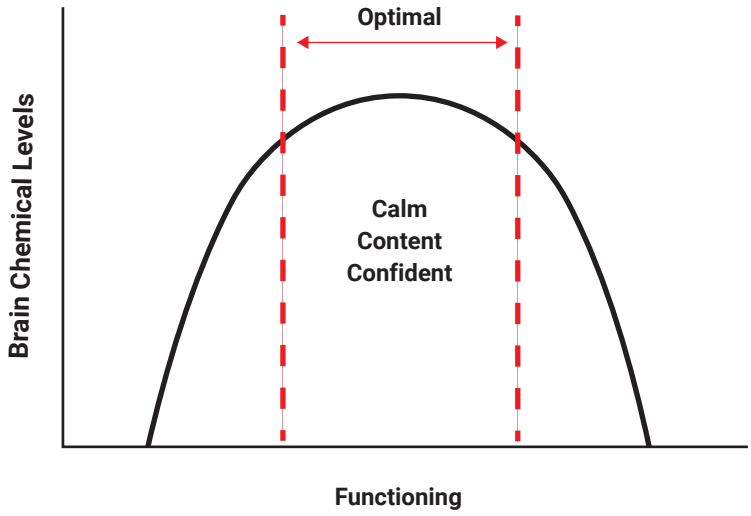
About the Brain & Risky Behavior Facts & Stats

How the Brain Gets Hijacked



Estimatied percentage change in dopamine based on brain imaging studies. Results vary depending upon type, concentration and duration of substance use or behavior.

Repeated use of substances or engagement in risky behavior may result in a brain chemical imbalance which changes functioning in brain circuits involved in pleasure, learning, stress, decision making and self-control.



Brain Chemicals

The chemicals our brain makes that carry signals between brain cells to tell our body what it needs and how to act, known as neurotransmitters or peptides. Different addictive substances and behaviors affect the brain in different ways depending upon how they effect these chemicals.

Dopamine - The brain's 'reward' chemical that makes us feel content when we do something good for our survival like eat, exercise or hug.
- Too little leads to depression or addiction
- Too much causes anxiety or hyperactivity

Endorphins - The brain's 'feel-good' chemicals that muffle feelings of pain and boost feelings of pleasure or well-being when we are hurt.
-Too little leads to heightened pain, moodiness and depression
-Too much leads to anxiety and depression

Glutamate - An excitatory brain chemical that stimulates the brain to learn and form memories.
- Too little causes low energy or concentration problems
- Too much may cause anxiety or restlessness

Endocannabinoids - Brain chemicals responsible for regulation and balance of body systems including immune, appetite, mood, memory and sleep.
-Too much leads to nausea, vomiting, & psychosis
-Too little leads to pain, digestive & sleep problems

Serotonin - A brain chemical that regulates and stabilizes mood and feelings.
-Too little leads to depression
-Too much causes excessive nerve activity