SOUTHEAST ADDICTION TECHNOLOGY TRANSFER CENTER NETWORK

NEUROTRANSMITTERS AND SUDS

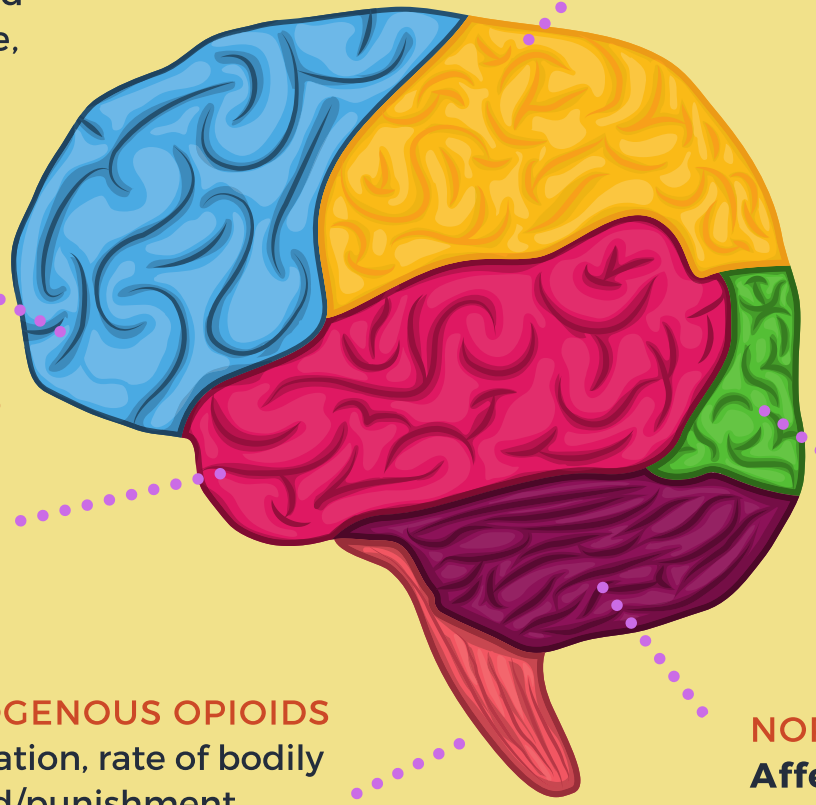
Neurotransmitters are chemicals that relay, amplify, and modulate signals within the brain. When we introduce drugs into the system it disrupts these pathways and interferes with the way the body and brain communicate.

DOPAMINE

Affects: pleasure/reward, movement, attention, memory
Drugs that affect it: virtually all drugs of use directly or indirectly alter dopamine in the reward pathway

SEROTONIN

Affects: regulation of mood and impulsivity, sleep, sexual desire, appetite
Drugs that affect it: cocaine, anti-depressants, stimulants, alcohol, hallucinogens



GLUTAMATE (WIDELY DISTRIBUTED IN BRAIN)

Affects: neuron activity, learning, cognition, memory
Drugs that affect it: alcohol

The HIPPOCAMPUS (GABA AND SEROTONIN)

Affects: learning, memory, and depression
Drugs that affect it: alcohol, marijuana

GABA

Affects: slowed neuron activity anxiety, memory, anesthesia
Drugs that affect it: alcohol, depressant drugs, marijuana, benzodiazepines

ENDORPHINS & ENDOGENOUS OPIOIDS

Affects: pain relief, sedation, rate of bodily functions, mood, reward/punishment
Drugs that affect it: heroin, opioids, morphine, prescription pain relievers

NOREPINEPHRINE

Affects: arousal and alertness, sleep, energy and feelings of pleasure
Drugs that affect it: cocaine and methamphetamine

WANT MORE?

HEAD OVER TO SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION AT SAMHSA.GOV FOR MORE INFORMATION OR HELP.

Other resources in this series can be found through Southeast Addiction Technology Transfer Center Network at https://attcnetwork.org/centers/southeast-attc/home

Sources by American Addiction Centers, National Institute on Drug Abuse, Mental Help, Las Vegas Recovery, and Laguna Treatment

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