

Important Neurotransmitters to Know

<i>Neurotransmitter</i>	<i>Function</i>	<i>Problems with Excess, Deficit</i>
Acetylcholine (ACh)	- critical to motor movement (deliver messages from neurons to muscles) - learning - memory	deficits in ACh production in Alzheimer's disease
Dopamine	- motor movement - alertness, attention	- deficit: Parkinson's disease - excess: schizophrenia - schizophrenia often treated with <i>antipsychotic drugs</i>: block dopamine receptors, limiting the amount of dopamine being transmitted across synapse
Endorphins	- pain control, stress reduction - feelings of pleasure "natural opiates"	deficits potentially involved in addiction?
GABA (gamma-aminobutyric acid)	brain's major inhibitory neurotransmitter	deficit: seizures, insomnia
Glutamate	- brain's major excitatory neurotransmitter - creates links between neurons that form basis of learning, long-term memory	excess: overstimulation of brain (seizures?) (This is why people avoid food with MSG. MSG = monosodium glutamate)
Norepinephrine (aka. noradrenaline)	"fight or flight" - controls alertness, arousal - elevates heart rate, circulation, respiration, etc. - mood elevation	deficit: depressed mood
Serotonin	- mood regulation - hunger, sleep	- deficit: depressed mood - depression often treated with <i>selective serotonin reuptake inhibitors (SSRIs)</i>: prevent serotonin from being reabsorbed in uptake, thus leaving more serotonin in synapses