

Class Preparation: Mental Health #1

Directions: Fill in the charts below. Identify what mental health disorders can occur when each neurotransmitter is increased or decreased.

	Functions	Increase	Decrease
Dopamine	Fine muscle movement, integration of emotions and thoughts, decision making, stimulates hypothalamus to release hormones	- Schizophrenia - Mania	- Parkinson Disease - Depression
Norepinephrine	Mood, attention and arousal, fight or flight in response to stress	- Anxiety - Mania - Schizophrenia	- Depression
Serotonin	Mood, sleep regulation, hunger, pain perception, aggression and libido	- Anxiety	- Depression
GABA	Reduces anxiety, aggression, pain perception, anticonvulsant and muscle-relaxing properties	- Reduction of anxiety	- Anxiety disorders - Schizophrenia - Mania
Acetylcholine	Plays a role in learning and memory, regulates mood, mania, sexual aggression, stimulates the parasympathetic nervous system	- Depression	- Alzheimer disease - Dementia - Parkinson disease - Huntington's chorea

Structures of the Brain

Brain Structure	Function
The limbic System	(Amygdala, hypothalamus, hippocampus) regulates activities such as emotions, physical and sexual drives, and the stress response (as well as processing, learning, and memory)
Frontal Lobe (Thought Processes)	Formulate or select goals; Initiate, plan, terminate actions; Decision making; Insight; Motivation; Social judgment; Voluntary motor ability starts in frontal lobe
Parietal Lobe (Sensory and Motor)	Receive and identify sensory information; Concept formation and abstraction; Proprioception and body awareness; Reading, mathematics; Right and left orientation
Temporal Lobe (Auditory)	Language comprehension; Stores sounds into memory (language, speech); Connects with limbic system, "the emotional brain," to allow expression of emotions (sexual, aggressive, fear, etc.)
Occipital Lobe (Vision)	Interprets visual images; Visual association; Visual memories; Involved with language formation