

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's disease, dementia, Parkinson's disease, Huntington's chorea

Structures of the Brain

Brain Structure	Function
The limbic System	The limbic system is thought to be an important element in the body's response to stress, being highly connected to the endocrine and autonomic nervous systems.
Frontal Lobe	The frontal lobe is the front-most part of the brain that is responsible for high-cognitive functions. It is located behind the forehead. The frontal lobe's main functions include decision-making, problem-solving, thought, attention, self-control, emotional regulation, memory, and social skills. It is essential for personality and communication abilities ³ .
Parietal Lobe	The parietal lobe is a region of the brain that processes sensory information from various parts of the body. It is involved in perception, attention, number representation, and object manipulation. The parietal lobe is located at the upper back area in the skull and has two sides, left and right, that may have different functions. The parietal lobe is essential for sensory integration and awareness of the environment.
Temporal Lobe	The temporal lobe is one of the four major lobes of the cortex that helps process sensory input, especially auditory and visual stimuli. It is involved in

	<p>understanding language, memory acquisition, face and object recognition, and emotion association. The temporal lobe is located just beneath the lateral fissure and crosses both hemispheres of the brain.</p>
<p>Occipital Lobe</p>	<p>Your occipital lobe, the smallest and rear-most of the lobes, is the visual processing hub of your brain. This area processes visual signals and works cooperatively with many other brain areas. It plays a crucial role in language and reading, storing memories, recognizing familiar places and faces and more.</p>