

Psyc 002 In-Class Exercise
Ch. 3 – Brain Structure-Function

Name: _____

Section #: _____ **Date:** _____

Structure	Function	What happens when there's damage?
1. _____	Breathing, heart rate, vomiting, salivation, coughing, sneezing	Loss of consciousness, coma, or death.
Cerebellum	Movement – specifically, smooth, coordinated movement; balance and coordination. <u>Examples:</u> throwing a baseball, walking, balancing on one foot.	2. _____ _____ _____
Basal ganglia	3. _____ _____ _____ _____	Parkinson's disease is a result of low levels of dopamine in the basal ganglia. Parkinson's patients experience resting tremors; have trouble starting movements they wish to make; and have "Parkinson's mask" – a lack of emotion in their facial expressions.
Hippocampus	Formation of new explicit memories (explicit memories are the memories you <u>consciously know</u> you have).	Give example of what a person with damage might be like: 4. _____ _____ _____
5. _____	Important to eating, drinking, and sexual behavior.	Damage can disrupt these basic survival functions. <u>Example:</u> Damage to a specific nucleus within this structure can result in eating behavior leading to extreme obesity.
Corpus callosum	6. _____ _____ _____	If severed, it's like you have two separate brains ("split-brain patient"). This is important if one hemisphere controls a function that the other hemisphere does not. <u>Example:</u> speech production (Broca's area) in the left hemisphere.
7. _____	Location of the post-central gyrus AKA the primary somatosensory cortex; navigation and your "mental map" of space; and some	Damage to the post-central gyrus can result in loss of sensation. Damage to other areas of this structure can result in the inability to navigate through space or find your way around familiar places

	attention functions.	(mapping). <u>Example</u> : Alzheimer's patients with damage to parts of this structure will get lost easily, even in their own homes.
8. _____	Location of the pre-central gyrus AKA the primary motor cortex. In the LEFT hemisphere, this structure contains Broca's area (speech production). Additionally, other higher cognitive functions such as planning, impulse control, aspects of personality are found in this structure.	Damage to the primary motor cortex can result in problems with movement. Damage to Broca's area will result in almost a complete inability to speak.
9. _____	Location of the primary auditory cortex. In the LEFT hemisphere, this structure contains Wernicke's area (language comprehension).	Damage to the primary auditory cortex will result in problems hearing sounds. Damage to Wernicke's area will result in problems understanding what someone says to you.
Ventricles containing cerebrospinal fluid (CSF)	Purpose of ventricles and CSF: 10. _____ _____ _____	Loss of brain cells through any type of brain damage can result in overly large ventricles that fill with CSF. Certain types of brain infections can result from bacteria crossing the blood-brain barrier and collecting in the CSF. These infections can be deadly.