

Memory Deficits

Brain Locations and Functions

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Brain Location	Function	Disorder
Auditory Association Cortex: Echoic Memory Auditory association complex	Memory of auditory info. Echoic memory replays auditory info heard while absorbed in other tasks. Auditory comprehension of speech	Inability to recall or remember auditory information (auditory processing disorder)
Short-term memory: Duration of a number of minutes	Retention can be enhanced by repetition, rehearsal, and chunking things down to small parts	Limited short-term memory is a symptom of a learning disability
Long-term memory:	Permanent memory Can be enhanced by repeated recall	Information does not get transferred from short term memory to long term memory
Extrastriate and prefrontal cortex	Short-term memory of perceptual information Ability to recall perceptual information in short-term memory. (EX: While in car, looking to the left and then to the right before pulling into intersection.)	Can't remember perceived material to compare or process
Hippocampus A specific area in the hippocampus called field CA	Organization of relational memories and the transport of these memories to the cerebral cortex Learning new material	Problems remembering stimulus-response, motor and perceptual learning <i>Anterograde amnesia:</i> Difficulty learning new material

Reference: Carlson, N. R., & Birkett, M. A., (2017). *Physiology of behavior* (12th ed). Boston, MA: Pearson Education Limited.