

Spatial memory allows movable organisms to orientate and stay therefore alive in an environment. At the beginning of previous century general rules of spatial memory were studied in static experimental conditions. Today's goal is to extend knowledge about its function also in dynamic environment. As a part of declarative memory, spatial memory depends on proper functionality of hippocampus. Hippocampus is considered to be centre of spatial memory not only because of spatial impairment when damaged, but also thanks to presence of place-specific neurons in several areas of hippocampus.

In research of spatial memory experimental mazes are used with possibility to manipulate with orientation cues, maze itself and surrounding conditions. It is possible to make one-shot changes or continual changes. It could be rotation of cues and landmarks, transition of maze across the room, rotation of maze etc. Tasks in dynamic environment are more demanding on cognition and so spatial orientation, which makes them more sensitive to damages of spatial memory. This could be the way of using them as a diagnostic method in medicine.