## Memento anterograde amnesia



## Memento

Memento, a psychological thriller starring Guy Pierce and directed by Christopher Nolan, is the story of a man who received serious head trauma during his wife's murder and has, as a result, developed anterograde amnesia.

Anterograde amnesia is a form of memory loss that affects the ability of memories to become transferred from the short term to the long term memory. Anterograde amnesia is something that can be a permanent disorder, but can also be caused temporarily by different amnestic drugs, or for a number of days and weeks after serious head trauma. Damage to the fornix, hippocampus, or mammillary bodies are the main cause of the amnesia's onset. Due to this, the theory that the three previously mentioned are the primary parts of the brain responsible for long-term memories, has been given much support. In less common cases, damage to the basal forebrain and the diencephalon have been known to cause anterograde amnesia.

The symptoms of anterograde amnesia are the impairment of the semantic and episodic memory; not allowing the patient to create any new memories of events or general knowledge facts. However, in some cases, especially common in young children, it seems that people with anterograde are able to create new semantic memories. Even more intriguing is that anterograde amnesia does not seem to affect the ability to learn and remember how to perform a physical skill. Most people with anterograde amnesia are able to remember how to do things, such as ride a bike or play an instrument, but

are not able to recall when and how they learned it. This leads researchers to believe that the procedural memory is largely unaffected.

Anterograde amnesia is very commonly and incorrectly referred to as "
short-term memory loss." This is untrue due to the fact that there is nothing
wrong with the short-term memory itself, rather the ability of the brain to
encode the information into the long term memory.

However, unlike retrograde amnesia, which causes the patient to loose memories from the past, such as the cliché character who has no recollection of their troubled past; people with anterograde amnesia are able to clearly recall all events previous to the one that caused the onset of the amnesia. Afterwards, they are no longer able to create any new memories.

In *Memento* the main character, Leonard Shelby (Lenny), acquires anterograde amnesia when he is struck over the head by an assailant during his wife's murder. During the struggle he is able to kill one of the assailants, but the other escapes. As a result of his head trauma he is no longer able to remember anything that happened after the incident for more than a few minutes. It is his mission throughout the film to track down and kill his wife's other murderer. In response to this, Lenny takes Polaroid pictures, writes notes to himself, and gets tattoos to remind him of important information regarding the man.

The constant feeling of Lenny's confusion is expressed throughout the entire film thanks to it's brilliant editing and storytelling. The film's narrative is told through 43 scenes; broken up into 21 black and white scenes that take place in a motel room, running forward chronologically, 21 color scenes that take https://assignbuster.com/memento-anterograde-amnesia/

place in reverse chronological order, and a final scene that connect the two narratives. Each scene ends with Lenny loosing his memory and begins with him reviewing all of his information. As a result of each color scene going in reverse chronology, the audience, like Lenny, does not have any recollection of anything that has previously happened. After all the twists and turns of the film Lenny actually uses his amnesia to set himself to kill the antagonist, convincing himself that the antagonist was the man who killed his wife.

By and large, the film *Memento* is a incredibly accurate portrayal of someone with anterograde amnesia, especially by Hollywood standards. The inaccuracies in the film are small and quite easy to overlook. One, for example, is that Lenny seems to be able to locate his car wherever he is. Someone with anterograde amnesia would find it nearly impossible to complete this task without some outside help. Also, Lenny seems to understand more about his amnesia than the normal person would. Even the understanding that he has the disorder is not completely accurate.

One very common treatment for those who have anterograde amnesia is keeping a diary. This is mirrored, albeit quite exaggerated, in *Memento* as Lenny's pictures, notes, and tattoos act as a quasi diary, allowing him to recall what has happened up to that point.

"It's like waking. Like you just woke up." This quote is Leonard Shelby's description of what is is like to have anterograde amnesia, and is quite similar to the description of many people with the disorder. This, along with many other things in the film are very accurate portrayals of symptoms of anterograde amnesia. For example, Lenny's inability to remember anyone

that he has met since the onset of his amnesia, is very accurate to those who have anterograde.

The scientific world, for the most part, reacted very positively to Memento and the film is cited as one of the most realistic depictions of amnesia in any movie. One of the most flattering and distinctive praises came from physician Esther M. Sternberg, Director of the Integrative Neural Immune Program at the National Institute of Mental Health. In the 292 <sup>nd</sup> issue of the journal *Science*; in an article titled, "Piecing Together a Puzzling World: Memento," Sternberg states: "" This thought-provoking thriller is the kind of movie that keeps reverberating in the viewer's mind, and each iteration makes one examine preconceived notions in a different light. Memento is a movie for anyone interested in the workings of memory and, indeed, in what it is that makes our own reality."