Forget What You Heard About Amnesia.   
  
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Forget What You Heard About Amnesia   
  
Sometimes you hear or see something so many times, you think it must be true. But while watching a movie, "The Majestic," I was reminded how wrong that can be. In the movie, the main character, played by Jim Carey, survives a terrible automobile accident and loses all past memory. He is otherwise fine, but as the result of his trauma, he cannot recall his name, his job, his relationships -- it's all gone.

It's a remarkably common device for fictional plots in books, television and movies -- "Desperately Seeking Susan" also comes to mind -- and in many cases, the character with amnesia has a second injury that prompts his or her recovery. It may make for good  
entertainment, but it's unlikely you have ever known someone to go through this sort of problem because it rarely (if ever) happens that way; and certainly amnesia does not require another blow to the head to resolve.  
  
  
Amnesia and Memory   
  
The word "amnesia" means loss of memory. But, because memory formation  
and brain function are complex, there are many types of amnesia. For example, memory can be divided into:   
  
Immediate -- Recalling information for a few seconds after learning it  
  
  
Short-term -- Recently learned information that can be recalled minutes or more after presentation   
  
Long-term -- Remote memory of events occurring long months or years ago  
  
  
A distinction also can be made between procedural memory (recalling how  
to do something, such as riding a bicycle), and declarative memory (recalling  
past information or experiences). Finally, researchers recognize additional  
types of memory including semantic (information that is independent of  
time, such as vocabulary), episodic (information tied to a particular time,  
such as recalling one's wedding day), and prospective(remembering that  
an event in the future will occur, such as bringing change for the bus  
fare).   
  
One's identity is among the most durable long-term memories -- forgetting  
who you are is rare, especially without other significant neurological  
and/or psychiatric illness. In "The Majestic," the amnesiac cannot recall  
anything about himself or recent events and struggles to play the piano,  
demonstrating that he'd lost not only all remote long-term memory, but  
procedural memory as well. Remarkably, his immediate recall seems normal,  
as he is able to remember the names and faces of people he meets after  
his accident without difficulty. This situation is highly unusual in real  
life.   
  
Researchers have discovered that different parts of the brain are important  
for forming and storing different types of memory. For example, several  
areas of the brain called the limbic system are important in memory storage.  
Injury to both the right and left sides of the limbic system is usually  
necessary to cause amnesia, but if injury is greater on the right, visual  
memories may be lost while the left side of the brain is more involved  
with verbal information.   
  
Forms of Amnesia -- Many Ways to Forget   
  
Just as there are many types of memory, there are several forms of amnesia:  
  
  
Anterograde amnesia -- The most common type of amnesia, it is characterized  
by difficulty forming new memories, a particular problem in dementing illnesses  
such as Alzheimer's disease.   
  
Retrograde amnesia -- This involves loss of past memories, involving those  
from a few seconds to a few months ago; it most commonly follows head injury  
and tends to improve over time.   
  
Transient global amnesia -- A temporary loss of all memory, but it particularly  
affects the ability to form new memories (severe anterograde amnesia),  
with milder loss of past memories (retrograde amnesia) going back a few  
hours. It is rare and is most common among older persons with vascular  
disease. A study published in June 2004 shed light on why brain scans are  
often normal in people with this type of amnesia: Abnormalities may not  
show up right away. Researchers found that it can take a day or two for  
abnormalities in the memory-forming portions of the brain to show up. These  
findings suggest that impaired blood supply, as may occur with a stroke,  
is to blame. This form of memory loss typically goes away entirely within  
hours.   
  
Almost any disease or injury to the brain can affect memory. The most  
common are Alzheimer's disease and other dementias, stroke, trauma or seizures.  
Amnesia is a common, initial symptom of Alzheimer's disease or related  
disorders. Some people with amnesia suffer from psychiatric illness --  
so-called psychogenic amnesia; in those circumstances, loss of past memories  
and identity may be prominent despite normal ability to learn and remember  
new information.   
  
Head Injury Is a Common Problem; Amnesia Is Not   
  
Although head injuries are common and may be serious, head trauma leading  
to complete and persistent loss of memory of past events, including one's  
identify, is extremely rare. When amnesia follows head trauma, it most  
often follows a concussion or more severe injury and typically affects  
past memories (that is, the amnesia is retrograde). A host of other problems  
may be caused by head injuries that cause amnesia, ranging in seriousness  
from life-threatening skull fractures, bleeding around or into the brain,  
or swelling of the brain to self-limited symptoms such as headache, fatigue  
or dizziness. When amnesia is prominent, many of these other symptoms are  
often present. Recovery of memory usually parallels resolution of these  
other problems.   
  
Many, perhaps most, head injuries can be prevented: Wearing protective  
headgear (for example, during athletic activities, or while riding a bicycle  
or motorcycle), not driving after drinking alcoholic beverages, and taking  
appropriate precautions when working in high places are examples of effective  
measures to reduce the risk of head injury.   
  
The Bottom Line   
  
The movies are often not the best place to get medically accurate information.  
Recognize that head injury is a common problem, but sudden, complete and  
persistent memory loss is not. Enjoy the movies, but take the medical events  
you see on the screen with a grain of salt (and popcorn).   
  
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