

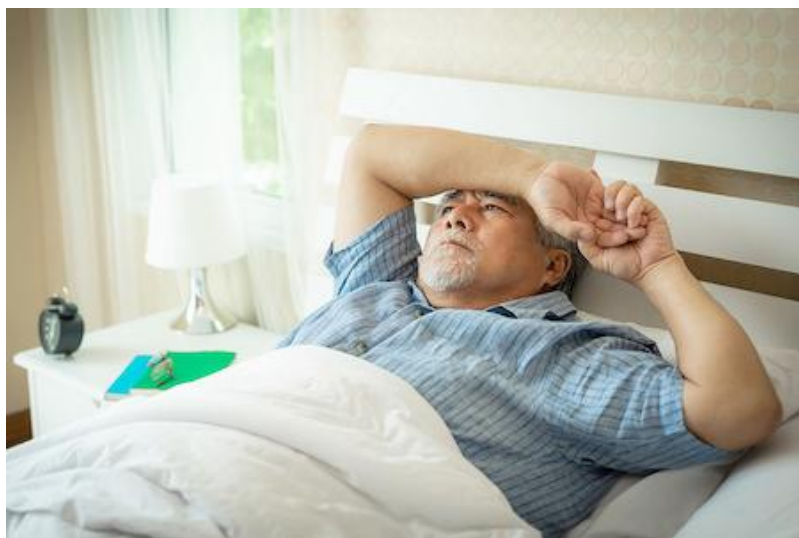


Aging Wisely With Linda

Consultations/Consulting • Counseling/Coaching
Expert on Dementia • Speaking/Teaching

November 2023

Sleep Disorders & Memory



Trouble sleeping? Discovering what is keeping you from getting 7–8 hours of sleep should be a priority. Long-term disturbances in sleep caused by sleep disorders can lead to problems with age-related health decline. Poor sleep is linked to increased age-related discomfort and pain. It can weaken your immune system, increasing your chance of illness and prolonging recovery time. Additionally, lack of proper sleep is also associated with memory-related challenges.

How Sleep Disorders Can Inhibit Memory-Making

The link between sleep and memory makes clear the importance of a good night's sleep. The act of remembering has [three stages](#):

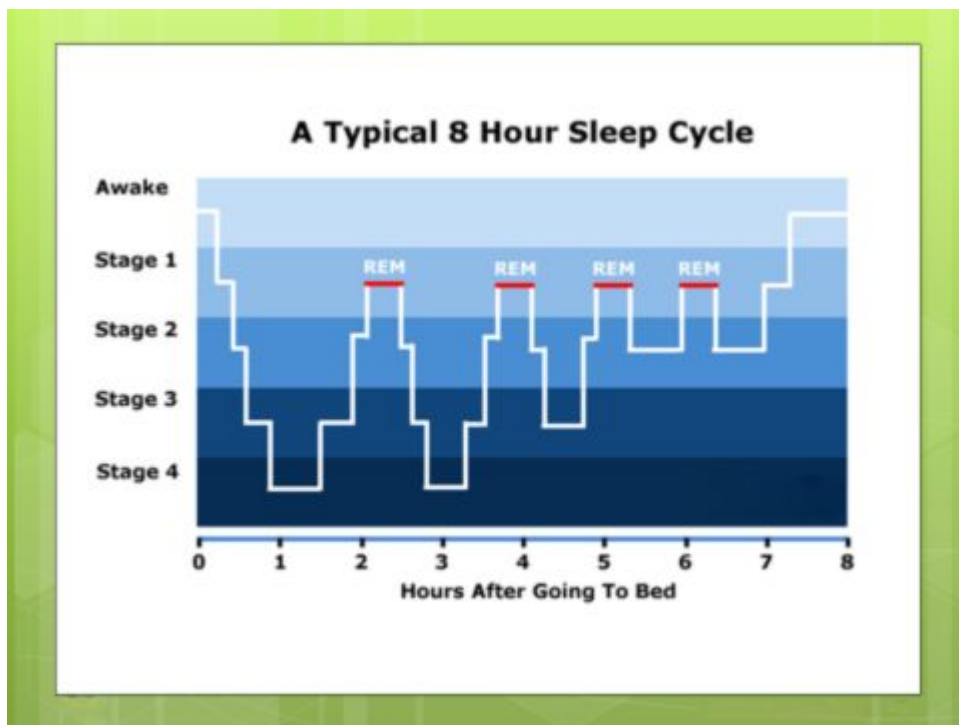
1. Acquisition/Encoding: This is when the memory is initially created as we learn or experience something new. At this point, memories are highly vulnerable to being forgotten.
2. Consolidation: This is the point at which the new memory becomes stable in the brain. New memories get integrated into already existing knowledge via networks in the brain; making it easier for you to recall them later.
3. Recall/Retrieval: This is the ability to “remember”; the process by which the brain locates the stored memory within its networks.

Both acquisition and recall are functions that take place when you are awake. Inadequate sleep can lead to daytime sleepiness, making it difficult to focus and pay attention. This can make it harder to encode new information and to recall what you have already learned or experienced. Moreover, research has shown [consolidation of a memory](#), no matter the memory type, takes place during the sleep period. This means an active sleep disorder increases the likelihood new information will not stabilize in the brain, making it impossible to later recall.

Other Brain Activity Impacted by Sleep Disorders

According to research by the National Institute of Health, sleep also helps remove toxic proteins which, if allowed to accumulate in the brain, can clog and kill healthy neurons as well as the memories they store. The build up of these beta-amyloid proteins harms brain function and is associated with Alzheimer's disease.

As you can see in the graph below, sleep has several stages, and the brain cycles between them multiple times during a typical 8-hour sleep period. Both the [REM period](#) and deeper sleep cycles play a role in memory consolidation (discussed above). Additionally, the [slow wave sleep \(SWS\)](#) associated with stages 3 and 4 is thought to be important for other cognitive functions, such as attention, learning, and decision-making. Studies have shown that people who get less SWS are more likely to experience cognitive deficits, such as difficulty concentrating and making decisions.



One of my recurring Zoom classes is titled, "The Elusive Thing Called Sleep". During the course, I teach you how to investigate your sleep problems and find solutions for a good night's sleep. Natural herbal supplements that can help with sleep are also discussed in the Zoom class. Remember that sleep aids and prescriptions may help you fall asleep, but they do not promote healthy sleep. If you'd like to know when I'll be teaching this class again, please reach out to me [via email](#).

I have included in the resources section of this email some good articles from respected sources, as well as one [sleep program promoted at Stanford](#).

Affirmation: "I have quality sleep most nights."

Resources:

[Sleep's Crucial Role in Preserving Memory](#)

[Want to Improve Your Memory? Get a Good Night's Sleep!](#)

[Sleep Deprivation and Memory Loss](#)

[Memory and Sleep](#)

[Stanford Sleep Health and Insomnia Program](#)