

FSMTA 2022

88th Annual Conference

Wellness session

Virtual: 28 January, 2023

Sleep and Exercise: the unsung practice strategies

Summary:

Sleep	Sleep before learning – better encoding
Sleep	Sleep after learning – better consolidation of both procedural and declarative memory
Lack	Lack of sleep hinders encoding, and makes declarative memory less reliable under stress
Exercise	Exercise before learning – better encoding
Exercise	Exercise 4 hr. after learning – aids consolidation of declarative memory

Articles

Allen, S. (2012). [Memory Stabilization and Enhancement Following Music Practice](#). *Psychology of Music*, 41(6), 794-803.

Blomstrand, P. and Engvall, J. (2021). [Effects of a single exercise workout on memory and learning functions in young adults – A systematic review](#). *Translational Sports Medicine*, 4 (1): 115-127.

Cedernaes J. et. al. (2015). [Short Sleep Makes Declarative Memories Vulnerable to Stress in Humans](#). *Sleep*, 38(12), 1861-1868.

Drummond, S. P. and Brown, G. G. (2001). [The Effects of Total Sleep Deprivation on Cerebral Responses to Cognitive Performance](#), *Neuropsychopharmacology* 25(5): S68-73.

Drummond, S. P. ,et al. (2000). [Altered Brain Response to Verbal Learning Following Sleep Deprivation](#), *Nature* 403 : 655-57.

van Dongen, E.V., et al. (2016). [Physical Exercise Performed Four Hours after Learning Improves Memory Retention and Increases Hippocampal Pattern Similarity during Retrieval](#). *Current Biology*, 26(13),1722-1727.

Walker, M.P. (2009). [The Role of Slow Wave Sleep in Memory Processing](#). *Journal of Clinical Sleep Medicine*, 5(2), S20-S26.

Books

Matthew Walker. (2017). [Why We Sleep: Unlocking the Power of Sleep and Dreams](#). New York: Scribner.

Lois Svard. 2023. [The Musical Brain: what students, teachers, and performers need to know](#). Oxford. (Extended discussion of sleep and memory in Chapter 6.) If interested, you can [order here](#) with discount code AAFLYG6

Websites

[Healthy Sleep](#) From the Division of Sleep Medicine at Harvard University Medical School.

from Science Daily

[Want to improve your memory? Go to the gym](#)

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