

## **This Sleep Supplement may Help Prevent Memory Loss, Cognitive Decline**

*By: Knowridge Science Report*



Melatonin is sold primarily in the United States as a sleep supplement

But in a recent study at Tokyo Medical and Dental University, researchers found this supplement may help you avoid cognitive decline and memory loss.

They found that melatonin and two of its metabolites help memories stick around in the brain and may shield people from cognitive decline.

The study is published in the *Journal of Pineal Research*. One author is Atsuhiko Hattori.

Like in people, cognitive decline in mice manifests as poor memory, and when tested on this novel object recognition task, they behave as if both objects are new.

In the study, the team was curious about melatonin's metabolites, the molecules that melatonin is broken down into after entering the body.

They suspected that they might promote cognition.

To test their hypothesis, the researchers familiarized mice with objects and gave them doses of melatonin and the two metabolites 1 hour later. Then, they tested their memory the next day.

They found that memory improved after treatment and that one metabolite called AMK was the most effective.

All three metabolites accumulated in the hippocampal region of the brain, a region important for turning experiences into memories.

The researchers also found that long-term memory formation could not be enhanced after blocking melatonin from being converted into AMK in the brain.

The study shows that melatonin's metabolite AMK can facilitate memory formation in all ages of mice.

Its effect on older mice is particularly encouraging, and the researchers are hopeful that future studies will show similar effects in older people.

If this happens, AMK therapy could eventually be used to reduce the severity of Mild Cognitive Impairment and its potential conversion to Alzheimer's disease.