

Sleep helps brain sift memories, study shows

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Most adults say they can't remember things as well as they used to. But what they really mean is that they can't remember anything for very long — and poor sleep may be the cause.

New research from the University of Notre Dame reveals that adequate sleep not only boosts or consolidates memories, making them easier to retrieve, but it actually goes beyond that to reorganize and restructure memories so that people retain the most salient of those, which often are the most emotional parts of a memory, according to Jessica Payne, assistant professor of psychology who specializes in how sleep impacts memory, creativity and the ability to process new ideas.

"In our fast-paced society, one of the first things to go is our sleep," Payne says. "I think that's based on a profound misunderstanding that the sleeping brain isn't doing anything, but the sleeping brain appears to be making calculations about what in our environment is important to remember in the long term," Payne says.

Published recently in *Current Directions in Psychological Science*, Payne's study also shows that the sleeping brain transforms our memories to render them more adaptive and useful and restructures the information to help us see new patterns and have new insights.

"Instead of simply preserving the information we experience and learn in veridical, high-fidelity format, our memories are flexible. Sleep confers some of this flexibility to memory so that we can use what we know in new and creative ways," according to Payne.



More information: cdp.sagepub.com/content/19/5/290.full

Provided by University of Notre Dame

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