

Boosting new memories with wakeful resting

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Too often our memory starts acting like a particularly porous sieve: all the important fragments that should be caught and preserved somehow just disappear. So armed with pencils and bolstered by caffeine, legions of adults, especially older adults, tackle crossword puzzles, acrostics, Sudoku and a host of other activities designed to strengthen their flagging memory muscles.

But maybe all they really need to do to cement new learning is to sit and close their eyes for a few minutes. In an article to be published in the journal *Psychological Science*, a publication of the Association for [Psychological Science](#), psychological scientist Michaela Dewar and her colleagues show that [memory](#) can be boosted by taking a brief wakeful rest after learning something verbally new—so keep the pencil for phone numbers— and that memory lasts not just immediately but over a longer term.

"Our findings support the view that the formation of new memories is not completed within seconds," says Dewar. "Indeed our work demonstrates that activities that we are engaged in for the first few minutes after learning new information really affect how well we remember this information after a week."

In two separate experiments, a total of thirty-three normally aging adults between the ages of 61 and 87 were told two short stories and told to remember as many details as possible. Immediately afterward, they were asked to describe what happened in the story. Then they were given a 10-minute delay that consisted either of wakeful resting or playing a spot-

the-difference game on the computer.

During the wakeful resting portion, participants were asked to just rest quietly with their eyes closed in a darkened room for 10 minutes while the experimenter left to "prepare for the next test." Participants could daydream or think about the story, or go through their grocery lists. It didn't matter what happened while their eyes were closed, only that they were undistracted by anything else and not receiving any new information.

When participants played the spot-the-difference game, they were presented with picture pairs on a screen for 30 seconds each and were instructed to locate two subtle differences in each pair and point to them. The task was chosen because it required attention but, unlike the story, it was nonverbal.

In one study, the participants were asked to recall both stories half an hour later and then a full week later. Participants remembered much more story material when the story presentation had been followed by a period of wakeful resting.

Dewar explains that there is growing evidence to suggest that the point at which we experience new information is "just at a very early stage of memory formation and that further neural processes have to occur after this stage for us to be able to remember this information at a later point in time."

We now live in a world where we are bombarded by new information and it crowds out recently acquired [information](#). The process of consolidating memories takes a little time and the most important things that it needs are peace and quiet.

Provided by Association for Psychological Science

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