

# Memory consolidation in musicians: The effects of sleep, interference, and recall on musicians' performance of a keyboard melody

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Procedural memory consolidation has been shown to enhance a variety of perceptual and motor skills during sleep, but only recently has this effect been investigated in trained musicians performing music. I tested the extent to which a music performance skill improves over a night of sleep and whether the consolidation process is inhibited when musicians learn two melodies in juxtaposition during a single training session. Fifty-five participants learned to perform either one or two 13-note piano melodies during an evening training session and were retested on the target melody the following morning. Participants showed evidence of overnight performance gains in performance speed and accuracy; however, learning a second, similar melody seemed to block these overnight gains in the melody learned first. These results indicate that experienced learners performing a familiar type of task, and one that includes auditory processing demands, benefit from overnight consolidation of procedural memories but that these benefits may be inhibited when musicians learn similar, competing tasks in juxtaposition.

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