A close up of MSKTC logo



# Quick Review of Model System Research

### Amantadine Did Not Positively Impact Cognition in Chronic Traumatic Brain Injury: A Multi-Site, Randomized, Controlled Trial

### What is the study about?

Though there is little evidence to support [amantadine](https://www.merriam-webster.com/dictionary/amantadine)’s effectiveness to improve cognitive function after traumatic brain injury (TBI), clinicians still commonly use it for this purpose. This study aimed to examine the effects of amantadine on memory tasks, attention and general thinking among individuals with TBI.

### What did the study find?

The use of amantadine to improve cognitive function in people with TBI was not supported by this study’s findings. In fact, the study found that after 28 days of use, people receiving placebo performed better on the memory and cognitive tasks than those receiving amantadine. This difference was not seen at 60 days, the end of the trial.

### Who participated in the study?

This study included 119 individuals with significant cognitive impairments resulting from TBI. Participants had to be 16-75 years of age with a sustained nonpenetrating TBI that occurred at least 6 months prior to registration.

### How was the study conducted?

This study used a randomized, double-blinded control trial where 100mg of amantadine was given twice daily to the control group versus placebo for 60 days. To monitor and analyze the results, a battery of [neuropsychological](https://www.merriam-webster.com/dictionary/neuropsychology#medicalDictionary) measures were used followed by a statistical analysis.

### [How can people use the results?](file:///C:\\Users\\ccai\\AppData\\Local\\Microsoft\\Windows\\Temporary%20Internet%20Files\\Content.Outlook\\4WHR71C4\\Bogner_CER-1403-13476_DFRR_Professional%20and%20Public%20Abstract_SME%20Review_102918%20ccai.docx" \l "Note" \o "Describe who could use the results and how. Could be patient, doctor, administration, centers. Should make sense given findings and study design. Do not overreach.)

Clinicians can use these results to inform decisions on whether to prescribe amantadine to individuals with TBI to improve cognitive functioning. Likewise, individuals with TBI and their family members can use these results to inform their own decision making on the effectiveness of amantadine for cognitive function.

### [Reference](file:///C:\Users\ccai\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\Content.Outlook\4WHR71C4\Bogner_CER-1403-13476_DFRR_Professional%20and%20Public%20Abstract_SME%20Review_102918%20ccai.docx#Note)

Hammond, F. M., Sherer, M., Malec, J. F., Zafonte, R. D., Dikmen, S., Bogner, J., . . . Temkin, N. (2018). Amantadine Did Not Positively Impact Cognition in Chronic Traumatic Brain Injury: A Multi-Site, Randomized, Controlled Trial. Journal of Neurotrauma, 35(19), 2298-2305. doi:10.1089/neu.2018.5767

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