



Key Points Summary

Jurick, S. M., Hoffman, S. N., Sorg, S., Keller, A. V., Evangelista, N. D., DeFord, N. E., Sanderson-Cimino, M., Bangen, K. J., Delano-Wood, L., Deoni, S., & Jak, A. J. (2018). Pilot investigation of a novel white matter imaging technique in veterans with and without history of mild traumatic brain injury. *Brain Injury*, 32(10), 1256–1265. <https://doi.org/10.1080/02699052.2018.1493225>

Primary Question this Study Addresses

What is the utility of in vivo myelin imaging in combat Veterans with and without history of mild traumatic brain injury (mTBI), and what is the relationship between myelin water fraction (MWF) and neurocognitive performance?

Study Findings That Add to Our Knowledge

There were no group differences in myelin water fraction (MWF) using a region-of-interest approach. More MWF clusters were found in Veterans with history of mTBI compared to those with no TBI.

Lower MWF across several regions of interest was associated with worse performance on a speeded attention task across groups.

How Study Evidence Might Be Used in Practice

Veterans in the post-acute period following mTBI showed limited MWF changes, but myelin content was related to speeded attention.

Myelin integrity has some potential as an objective biological marker of myelin damage associated with persistent symptoms following mTBI. More research is needed.

For more information on neuroimaging and TBI, please visit:

 [Resource](#)

To access the study abstract, click here:

 [Abstract](#)

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