



# Advanced Technology Showing How PTSD Alters Brain Function

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For years people suffering from [post traumatic stress disorder](#) (PTSD) were dismissed as complainers and fakers. Their cases were given little to no serious consideration from the medical community and from society at large. Slowly, that has started to change. As our National News Desk at [InjuryBoard](#) highlighted, PTSD is now listed in the diagnostic manual used by psychiatrists and psychologists along with the criteria for making the diagnosis.

Up until now, however, PTSD has largely been diagnosed through its symptoms without a significant method of objectively testing just how the mind has been affected by the traumatic events that led to the disorder. That is slowly starting to change. New and powerful imaging tests are being developed to detect just how the brain changes in people with PTSD. The disease that was once "just in your head" is turning out to be the result of damage to the brain's nerve fibers that handle memory and confusion.

The technique is called [Diffusion Tensor Imaging](#). It is a non-invasive procedure adds just a little time to a standard MRI. It involves tracking how water flows through tiny, celery stalk-like nerve fibers in the brain, measuring the direction and speed of the water molecules to determine if the nerve fibers have suffered any damage.

While this research has been primarily driven by the waves of veterans from Afghanistan and Iraq who has suffered from PTSD and [Traumatic Brain Injuries](#) (PDF), the ramifications of this technology can be far reaching. Countless Americans suffer from PTSD and traumatic brain injuries, ranging from an auto accident to surviving traumatic events such as a rape or child abuse. [Treatment](#) for all these individuals will likely be altered from this research as scientists learn more about how the brain heals itself from traumatic events.

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