

How Vietnam War vets aid in brain research

In 1967, William F. Caveness, a neurologist and veteran of the Korean War, began building a registry of living soldiers who had suffered head trauma in Vietnam. Studies of veterans of the Second World War had suggested that penetrating head injuries could cause seizures, and Caveness, who had documented post-traumatic epilepsy in soldiers injured during the Korean War, was eager to understand more about this connection.

“He saw that the Vietnam War was heating up, and he wanted to study some American combat veterans who suffered penetrating brain injuries and survived,” said Jordan Grafman, the director of brain-injury research at the Rehabilitation Institute of Chicago.

As the scientists continued to track the veterans over the decades, they documented the long-term cognitive repercussions of brain trauma. Before joining the military, the men had all taken the Armed Forces Qualification Test (A.F.Q.T.), which measures several aspects of intelligence. These scores served as valuable benchmarks, giving researchers insight into each man’s cognitive aptitude before his injury. Scientists found that as the veterans aged, they [lost cognitive skills](#) more quickly than uninjured vets. But high levels of intelligence were protective; among the wounded vets, those who had scored the highest on the A.F.Q.T. deteriorated more slowly than those who had performed poorly.

Researchers have now also used the tools of molecular genetics to peer inside the veterans’ cells, identifying [several genes](#) that seemed to influence how well they recovered from their head trauma. “Having a good or bad variant of a gene can predispose an individual to a better or worse outcome,” said Aron Barbey, who joined the project, in 2009, when he was a postdoctoral fellow at the National Institute of Neurological Disorders and Stroke, where Grafman was working.

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