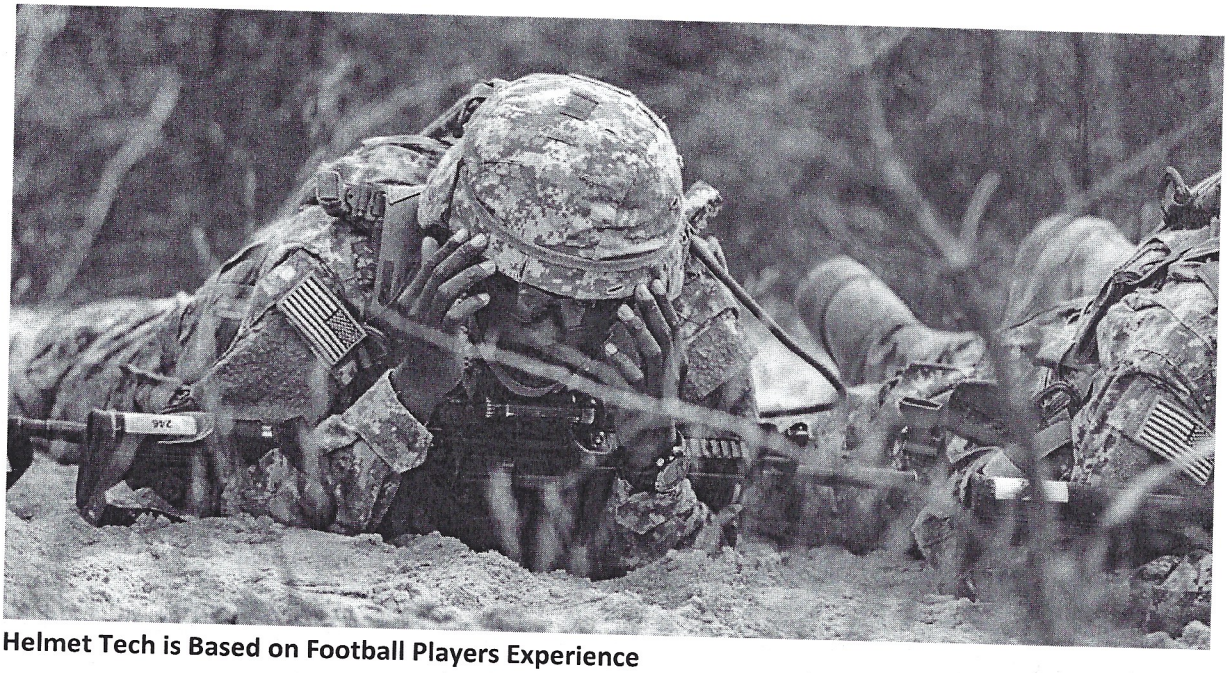


Helmet Tech is Based on Football Players Experience

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Nearly 20 percent of US soldiers have suffered a traumatic brain injury with symptoms including memory problems, persistent headaches and seizures, and behavioral problems like aggression and anxiety as result of head injuries. In some cases, that head trauma can also lead to the deteriorating brain condition CTE. And it's just not on the battlefield. The military says 80 percent of these injuries happen in training and non-deployed settings.

Now, the US military is taking lessons from an unlikely place, the football field.

After rigorous testing measuring the impact forces that get through the helmet to the head, the ZERO1 helmet developed by football helmet company Vicis was ranked No. 1 by the NFL in reducing the severity of blows to the head, which can help protect players from traumatic brain injuries and CTE.

The military announced a contract aimed at redesigning Army and Marine Corps helmets to better protect troops from head trauma.

Vicis CEO Doug Marver says the outer shell of military helmet is designed to primarily stop bullets and shrapnel – not necessarily to protect from blunt impact. Current military helmets are lined with foam padding. To improve on that, Vicis plans to replace the foam with their own liners, which are designed using dozens of small, bendable columns that compress and move to absorb incoming force.

"We've shown we've reduced the impact forces by 30, 40 percent relative to the foam pads that are currently in the Army combat helmets," he said. "We're sure hopeful that it's going to make a big difference in the lives of our servicemen and women."

But David Hovda, who runs the UCLA Brain Injury Research Center, says there's a lot we don't know yet about how much new helmets would help. He says just because lab testing shows a helmet can

reduce impacts to the head, it doesn't necessarily mean it's reducing injuries caused when the brain hits the inside of the skull.