



Hokies, helmets and HITS

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Even football players have homework and, as the Virginia Tech football team learned last season, some assignments can really go to your head. The Blacksburg team served as a test subject for a New Hampshire-based company that is researching head injuries suffered by athletes.

Simbex, an international company that researches injury prevention and rehabilitation products, developed the Head Impact Telemetry System, or HITS, specifically to study head injuries. It involves placing a series of sensors in the helmet or pads of an athlete. When the athlete suffers a potentially damaging hit, the sensors send information on the impact to staff on the sidelines who can instantly see the force, location and duration of the blow. The on-field staff then uses that information to check the health of the player and collect data for further collision research.

After working on the system for more than two years, Simbex needed the help of a winning football team to further the study. That's where the Virginia Tech Hokies came in. This season, eight players from the burgundy and orange donned HITS helmets, each containing six impact sensors and costing \$2,000 a pop. By working exclusively with Tech's team, Simbex hopes to gather information on what types of impact cause concussions and which positions suffer the most head trauma in hopes that safer equipment can be made to protect athletes. "It has been a very helpful relationship," says Simbex project manager Jeff Chu.

The project, funded in this state by Virginia Tech and the Virginia College of Osteopathic Medicine, so far seems fruitful. Researchers are dedicated to their goal of significantly reducing sports related head trauma. Though no definite conclusions have yet been reached, head team physician for Virginia Tech, Dr. P. Gunnar Broolinson, says the team has been "very pleased" with the data collected thus far, which immediately shows which impacts are potentially injurious and which aren't.

Simbex and Virginia Tech hope to continue their alliance next year while Simbex looks to eventually work with automotive manufacturers and the military. While the joint venture won't give the Hokies an advantage over the competition on the field, it does further promote Tech as a player in sports medicine technology.