Brian Christie, a trainer, noted that players who didn’t do well in tryouts were trying to better understand a complex condition. He wondered whether the software program developed to improve cognitive function in the elderly could be used to gauge the impact of a concussion, a traumatic brain injury that jars or shakes the brain inside the skull. Christie was so impressed with NeuroTracker that he now has used it to assess hundreds of individuals.

The work could lead to an objective test for concussion, which doesn’t yet exist. “Concussions are an unseen injury,” says Christie. “You see a disruption in cognitive performance in the absence of any structural damage; things aren’t working right, but there’s no obvious reason why. It’s important that schools and sports teams understand what concussion is and what to do about it with their athletes and students.”

Christie and his students recently used the Sport Concussion Assessment Tool (SCAT) for baseline testing with a boxing team headed for a provincial championship. Until an objective test is found, using SCAT before a competition can help determine that with more certainty, says Christie. “The students put their heart and soul into this research, and we’re so appreciative for how supportive the community has been.”

With evidence now emerging from Christie’s lab that regular sessions with NeuroTracker may improve cognitive function in the elderly, the team is working with U Vic’s Institute on Aging and Lifelong Health and an enthusiastic cohort of elderly subjects. Early results are promising. “Some of these participants feel that working with the NeuroTracker has been beneficial for their bridge games,” he says. “So, we’ve got quite a happy group of card players coming into the lab.”