

Neurobehavioral and Psychological Health Outcomes Evaluation of the King-Devick Test to Assess Eye Movements and the Performance of Rapid Number Naming in Concussed and Non-Concussed Service Members

This study's objective is to determine to what extent the King-Devick Test results discriminate healthy individuals from both their pre-combat baseline and their post-combat assessment; to determine to what extent individuals diagnosed as having a mild traumatic brain injury (mTBI) event differ from their King-Devick Test pre-combat baseline; and to determine to what extent individuals who report a history of concussion during their pre-combat baseline differ from those who have not reported a prior concussive event. Data collection for this study commenced on 25 July 2016, and 11 subjects have been enrolled (n=100). This study was funded by the Defense Medical Research and Development Program (DMRDP) and is being conducted at Fort Benning, Georgia, in collaboration with Auburn University. The outcomes of this study will inform the military leadership of the neuroanatomical and physiologic changes associated with combat training (both sub-concussive and concussive events) and the research community of the sensitivity and specificity of various brain imaging techniques compared to neurocognitive measures of interest. In the long run, the findings of this research are expected to lead to preventing concussion associated with training.

