



US DEPARTMENT OF DEFENSE

# BLAST INJURY RESEARCH PROGRAM COORDINATING OFFICE

## Diagnostics

### Advanced Magnetic Resonance Imaging (MRI) in Blast-Related TBI

A team at Washington University studied Service Members with acute TBI in two studies. The studies examined Service Members with TBIs and blast exposure in combat within one week of injury at two sites in Afghanistan and six to 12 months post-injury in the US. One of the most widely reported findings from the study was that the actual incidence of TBI from pure blast exposure was extremely low and that combat blast injuries were more closely associated with other post-blast related events (e.g., impact). A recent publication based on the second study found that Service Members with concussion demonstrated a greater magnitude of post-injury deficits (stress, depression, cognitive performance, headache, etc.). Additionally early signs of PTSD and related psychological symptoms more strongly predicted long-term disability (work, family, social activities, etc.) than post-concussive outcome measures.