Researchers focus on finding treatments for traumatic brain injuries

In recent years, health and safety experts have warned that the incidence of traumatic brain injuries has reached epidemic proportions in the U.S. Preventing the occurrence of these sorts of injuries and developing new, better treatment strategies has become particularly pressing as research mounts indicating that the effects of <u>traumatic brain injuries</u> may linger on for years.

Surprisingly, much of the impetus for developing new traumatic brain injury treatments has come from researchers and doctors working with recent veterans of the wars in Iraq and Afghanistan. As soldiers have returned home from deployment, the U.S. military has seen a record number of men and women returning from combat after suffering a TBI. The large sample of patients has allowed doctors to make strides not only in diagnostic techniques, but also treatment options. Although these new approaches have been developed to treat soldiers, new information will make it easier to treat civilian patients, as well.

At a recent symposium on brain injury sponsored by the Pentagon, scientists presented findings from several different studies, all of which have contributed to medicine's understanding of traumatic brain injuries. The findings of these studies may be preliminary, but they provide cause for optimism.

One common problem in treating brain injuries is properly diagnosing patients. A proper diagnosis can lead to earlier treatment, which in turn can improve a patient's prognosis. Two studies presented at the Pentagon symposium proved that a simple test for a certain protein in the blood could help doctors diagnose TBI. The protein is released by the body after the brain has been injured.

Once doctors have diagnosed a patient with a TBI, the next step is to determine the best course of treatment. One study presented at the symposium examined the use of the hormone progesterone for TBI patients. Although commonly administered to women going through menopause, progesterone also appears to reduce swelling in the brain. The drug is so effective, in fact, that its use cut fatalities in instances of severe TBIs by about 50 percent.

Of course, a great deal of work is still necessary to ensure that everyone who has suffered a TBI is able to become well again. To that end, the Pentagon has announced that it is spending

approximately \$100 million this year on TBI research alone. Since 2007, the military has spent approximately \$700 million on TBI research. This work is essential in helping not only military service members, but also civilians, as well.