

War-related Eye Injuries Take a Toll

Legislation to create a tracking system and improve care was recently passed by US Congress.

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More than 1,100 veterans of the wars in Iraq and Afghanistan, or 13% of all wounded casualties, have had to undergo surgery for an eye injury between October 2001 and June 2006, according to research published in *Survey of Ophthalmology*. That is the highest percentage of eye wounds in any major conflict since World War I, according to the researchers. Many of these combat eye injuries require multiple surgical procedures and treatments at several facilities.

In an effort to address this health issue, the US Congress approved legislation that would ensure quality care for any service member who has suffered a serious eye injury while on active duty. The legislation also attempts to improve the tracking, diagnosis, treatment, and follow-up for service members who have experienced eye injuries while serving on active duty.

The federal legislation provides \$5 million for a Pentagon-based center for research and treatment of injured eyes.

Eye trauma in military personnel is normally caused by metal shrapnel, dirt, cement, and other objects from explosions, and is often accompanied by other massive bodily injuries, according to Col. Allen B. Thach, MD. In a review of almost 800 medical records of Iraq coalition forces, enemy prisoners of war, and civilians treated by US ophthalmologists treated between March 2003 and December 2005, Dr. Thach found that explosions caused 73% of severe eye injuries. About 13% of patients required enucleation, evisceration, or exenteration; this compared with 50% of eye injuries in World War II and 20% in the Vietnam War.

Intraocular foreign body injury in military service members is often coupled with a delay in removing the foreign body. In one study of these injuries, foreign

body removal averaged 20.6 days from the time of the injury. The study states that despite the delay, there were no cases of endophthalmitis in these patients.

To address the problems faced by these injured or blinded soldiers, the US Department of Veterans Affairs (VA) operates 10 rehabilitation centers across the country; however, these centers have only 241 beds, and the average admittance-waiting period is as long as 3 months. The department plans to open three more centers beginning in 2010, according to an article in *USAToday*.

OTHER INJURIES ALSO IMPACT VISION

In addition to direct eye injuries, a significant number of soldiers returning from the Middle East are also experiencing vision impairment caused by traumatic brain injuries; some 54% of soldiers treated at the Walter Reed Army Medical Center who have traumatic brain injuries report vision prob-

lems. As many as 16% of soldiers who return from Iraq experience significant vision dysfunction, according to information from the American Academy of Ophthalmology.

The establishment of a registry will allow the VA to track veterans and active duty personnel who have eye injuries, said James C. Orcutt, MD, PhD, Chief Ophthalmology Consultant for the VA. The legislation passed by US Congress requires ophthalmologists in the Department of Defense to report surgeries or other procedures to the registry in 30 days.

Additionally, the VA plans to invest \$40 million to create 55 outpatient clinics across the nation to provide rehabilitation for veterans learning to cope with diminished vision, Dr. Orcutt said. The VA also helps to link veterans to guide-dog schools. ■

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