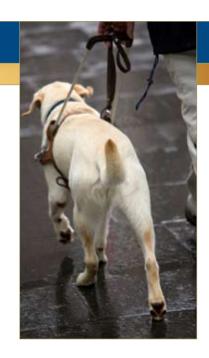


## RESEARCH ADVANCES

MARCH 2009

## **Vision Loss**

One of the most exciting areas of VA research in this field is the development of an artificial retina to restore vision to those affected by macular degeneration or retinitis pigmentosa. VA researchers are also working to improve or design new assistive devices for the visually impaired, and to develop more accurate and efficient methods of vision assessment.



## Examples of VA Research Advances

Vision problems in PTSD and TBI – Many Veterans with posttraumatic stress disorder (PTSD) and traumatic brain injury (TBI) also have vision problems, such as difficulty focusing or sensitivity to light. But experts are unsure about the exact roles of PTSD and TBI in these problems, and how each condition may affect the pathway between the eyes and the brain. Researchers at the Palo Alto, Calif., VA Medical Center hope to shed light on this issue by studying vision disorders among two groups of Veterans—one with PTSD, and the other with PTSD and mild TBI.

Study backs expansion of low-vision program – A two-year study that involved 126 legally blind Veterans documented the effectiveness of providing low-vision therapy on an outpatient basis. Until 2007, Veterans

with low vision were treated mainly at regional centers that required extended stays. Now, the therapy is available at far more sites, making it more convenient for Veterans and cost-effective for VA. The therapy doesn't improve eyesight per se, but it does teach patients how to use various adaptive devices so they can keep doing everyday tasks.

Help for macular degeneration — In a Chicago-based VA study, Veterans with age-related macular degeneration who took the antioxidant lutein by itself or in combination with other nutrients showed major improvements in several symptoms. The study was the first to show that lutein could not only slow the progression of the disease but could actually help reverse it.

## **Facts About Vision Loss**

VA estimates that by 2010 there will be nearly a million Veterans coping with severe visual impairment. In older Veterans, major causes of vision loss include age-related macular degeneration, glaucoma, cataracts, stroke, and diabetic retinopathy. Many of these Veterans are helped through VA's extensive network of Low Vision Rehabilitation programs. Among the newest generation of war Veterans, many of those who have suffered brain injuries as the result of blasts also experience vision problems, such as blurred vision, double vision, sensitivity to light, and difficulty reading. One study at a VA polytrauma center found that 38 percent of patients had a visual impairment; in those injured by blasts, the figure jumped to 52 percent.

