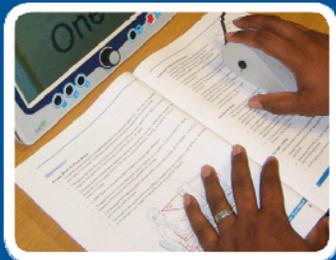




Computer/Electronic
Accommodations
Program



Keeping Employees Healthy at Work through Proper Ergonomics



Sharon Terrell-Lindsay

Robin Yuspeh

Computer/Electronic Accommodations Program
(CAP)

March 24, 2009



The Scope of Our Challenge

- Musculoskeletal Disorders (MSDs) as a source of disability cost \$254 billion dollars in 1999
 - National Center for Health Statistics
- Repetitive Stress Injuries (RSIs) account for 70% of all job-related claims
 - Department of Labor (DOL)
- Average cost per claim is \$29,000
 - National Council on Compensation Insurance
- Three-quarters of all jobs require computer use
 - Pascarelli and Quilter
- One-third of all work-related lost workday injuries are from MSD
 - National Center for Health Statistics



Office Ergonomics – Key to Retention

- Ergonomics is the field of study that seeks to fit the job to the person, rather than the person to the job.
- This process is achieved by the evaluation and design of workplaces, environments, job tasks, equipment, and processes in relationship to human capabilities and interactions in the workplace.



Is anything wrong with this picture?





How Do You Know if You Have a Problem?

- Do your employees attempt to find their own solutions?
- Do they wear 'body armor' or keep Advil at their desks?
- Do you just pick and choose from catalogues?
- Do you provide the same solution for everybody?
- Do you have a disability that is currently being impacted by ergonomics?



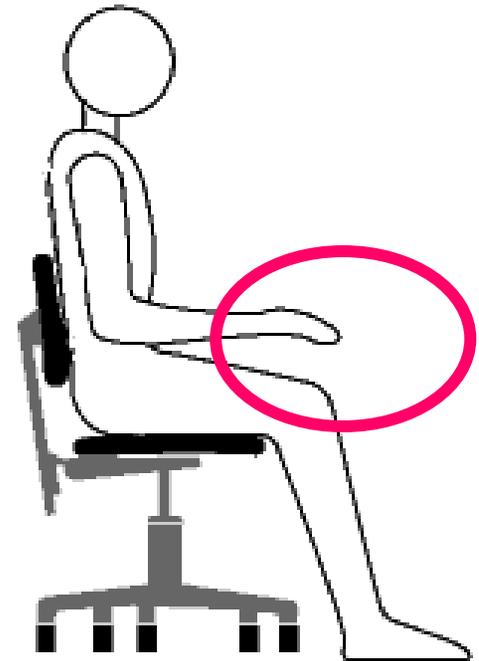
How Do We Assess a Situation?

- Look at the end user's physical characteristics
- Current furniture components
- Equipment used
- The job tasks
- The way these variables interface with the user determines the level of risk

Wrist Pain or Discomfort

Possible Solutions

- Keep wrists in neutral position by adjusting the keyboard height and angle
- Ensure keyboard and pointing device are on the same surface
- Position the keyboard so that the wrists aligned with the forearm to minimize awkward bending from side to side
- Move the arm rather than overstretch the palm (especially little finger reaches) to access control keys





Neck Pain or Discomfort

Possible Solutions

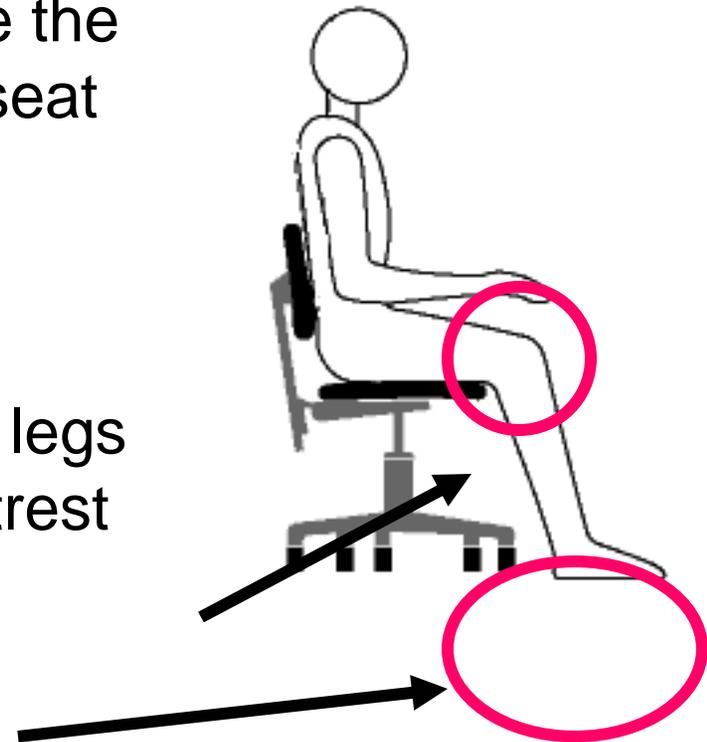
- Raise or lower the monitor so that the top of the screen is at eye level
- Raise or lower documents or use a document holder to minimize leaning forward
- Raise or lower the chair or work height to prevent awkward positions
- Keep work in the midline of the body to avoid twisting the trunk or neck





Leg Pain or Discomfort Possible Solutions

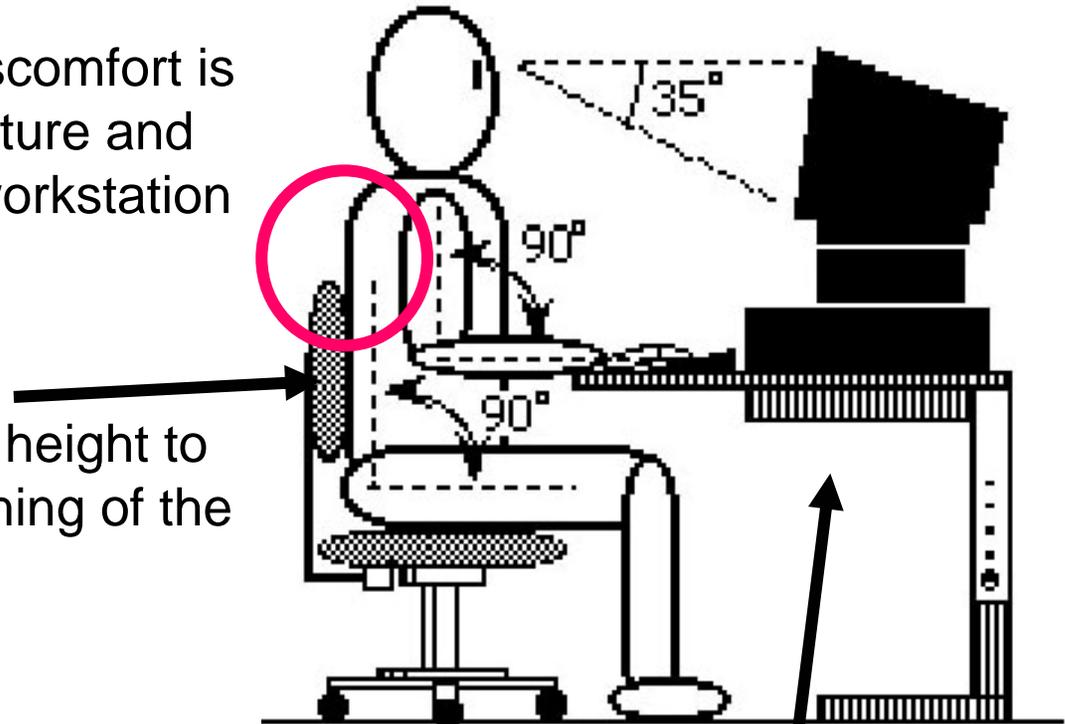
- Shorten the seat pan or move the backrest forward so that the seat pan is not applying pressure behind the knees
- Lower the chair height so the legs are not dangling or use a footrest to provide support





Back and Leg Pain or Discomfort Possible Solutions

- Back and leg pain or discomfort is usually attributed to posture and the chair used at your workstation
- Adjust the work surface height to minimize excessive arching of the back or slouching





Back Pain or Discomfort Possible Solutions

- Fully adjustable chairs are essential to an ergonomic environment
- Adjust the backrest of the chair to support the low back curve
- Sit with the buttocks back in the chair rather than on the edge to maximize chair back support





Real Needs

Ergonomic Program Benefits

- Reduces repetitive injuries
- Decrease or cut lost work time and absenteeism
- Increase productivity
- Improve morale and well being of workers
- Acquire appropriate ergonomic accommodations – fit the job to the person





CAP: 19 Years of Accommodations

- CAP was established in 1990 as DoD's centrally funded program to provide accommodations
- Expanded by Congress in 2000 to support other Federal agencies
- Partnerships with 65 Federal agencies
- Over 74,000 accommodations

CAP Mission

- To provide assistive technology and accommodations to ensure people with disabilities and wounded service members have equal access to the information environment and opportunities in the Department of Defense and throughout the Federal government

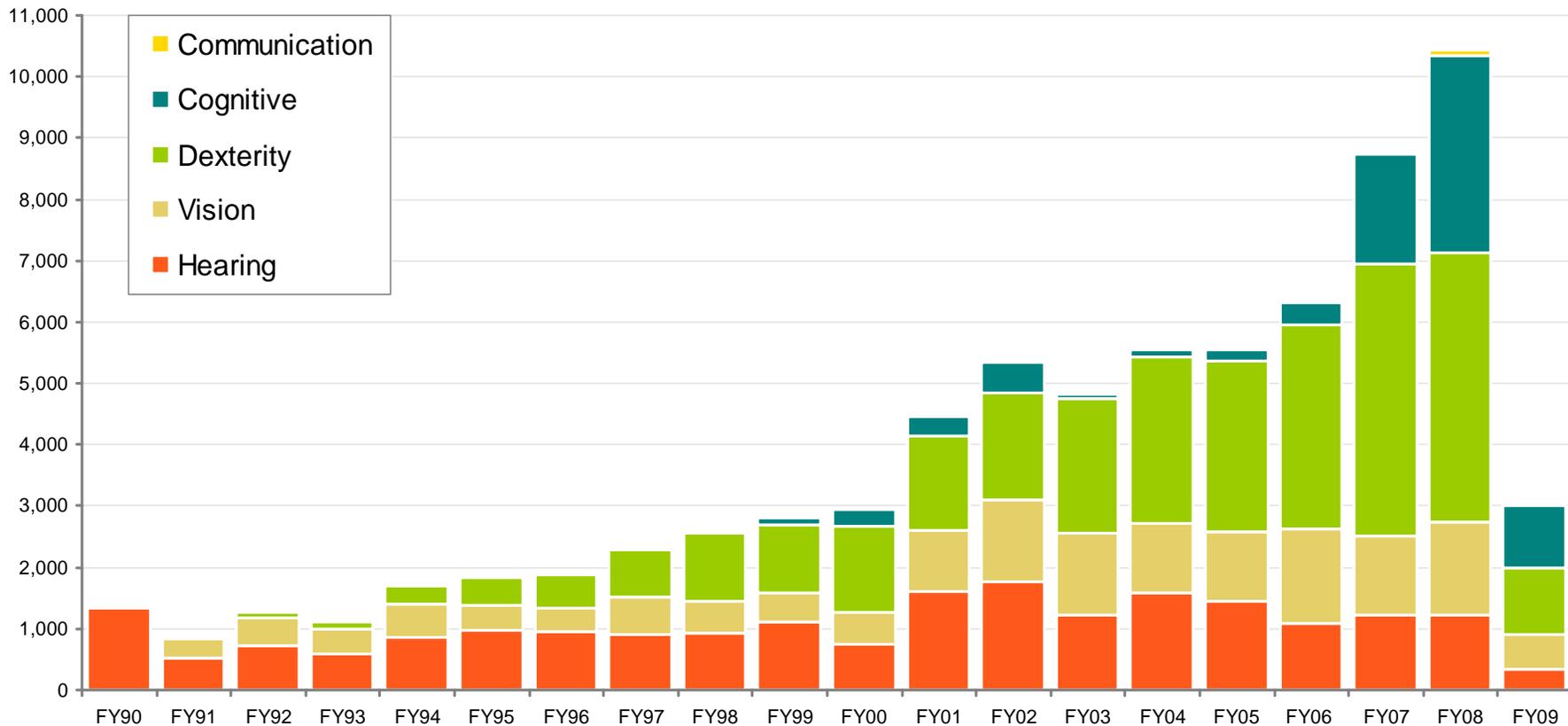


CAP Services

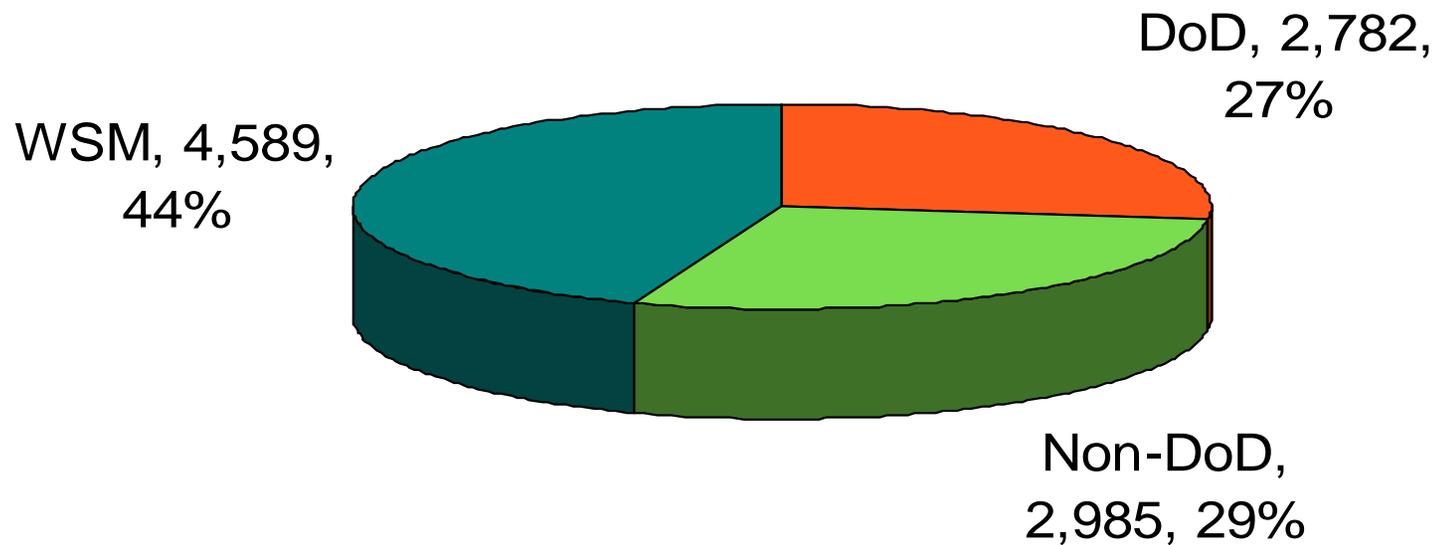
- Provide assistive technology and training
- Conduct needs assessments and technology demonstrations
- Provide installation and integration
- Provide training on disability management and on creating an accessible environment
- Support the compliance of federal regulations
- Assist in the recruitment, placement, promotion and retention of people with disabilities and Wounded Service Members

CAP Accommodations Profile by Disability (FY90 - FY09 YTD)

74,911



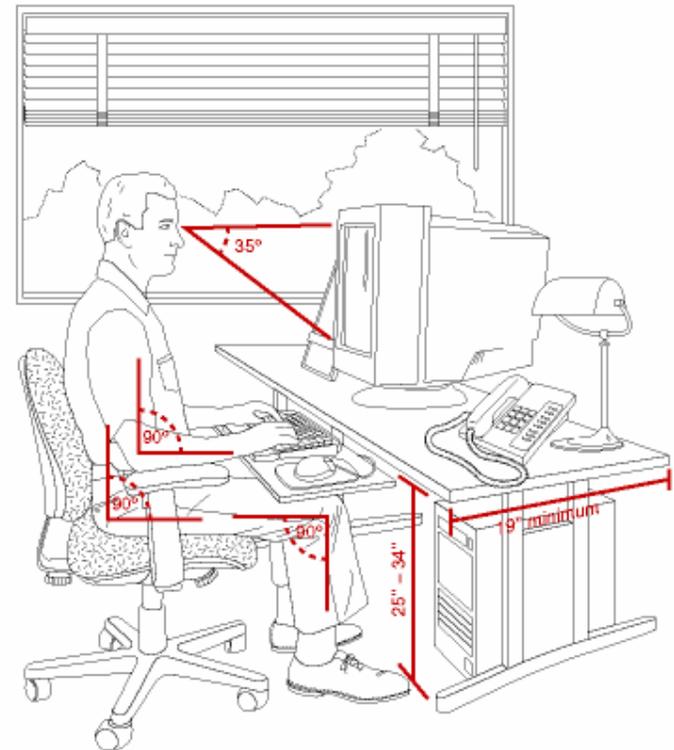
FY08 CAP Accommodations Profile by Organization





Real Solutions Retention - Healthy Work Practices Program

- Disability Prevention
 - Employees who develop ergonomic disabilities
 - Secondary disabilities
 - HWPP Training
 - Safety and Occupational Health Specialists
 - Workplace Ergonomic Reference Guide
 - Needs Assessments and Demonstrations
 - CAP Web site Needs Assessment Process
 - CAP Technology Evaluation Center (CAPTEC)
- Disability Accommodation
 - Individuals who develop Musculoskeletal Disorders
 - Repetitive Stress Injury (Carpal Tunnel, Tendonitis)
 - Keyboards, pointing devices, and other dexterity-related tools





Needs Assessment

- **The Job**
 - Review the duties
 - Discuss the limitations
 - Review the workstation configuration
- **The Individual**
 - Discuss the diagnosis
 - Review options and familiarity with assistive technology
- **The Solutions**
 - Identify assistive technology devices and software solutions
 - Determine installation/training





Accommodations for Individuals Dexterity Disabilities

- Alternative Keyboards & Pointing Devices
- Keyboard Enhancement Systems
- Keyboard Trays and Document Holders
- Speech Recognition Software and Training
- Headsets and handsets





Accommodations for Individuals Deaf or Hard of Hearing

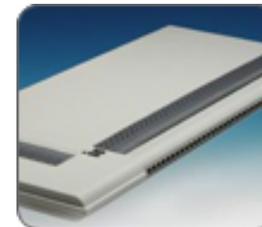
- Teletypewriters (TTYs), PC-based TTY modems, networked TTYs
- Video communication devices for Video Relay Services
- Telephone ring signaler
- Amplified and voice carry over telephones
- Assistive listening and amplification devices
- Closed captioning equipment for in-house videotapes





Accommodations for Individuals Visual Disabilities

- Voice Output
 - Screen readers and training
 - Scanner-readers
- Braille devices
 - Terminals
 - Embossers
- Portable notetakers
- Print Enlargers
 - Closed Circuit TVs (CCTVs)
 - Screen magnification S/W





Accommodations for Individuals Other Disabilities

- Cognitive / Learning
 - Word prediction software
 - Literacy software
 - Speech recognition software
 - Screen readers
 - Cueing and memory aids (PDAs)
 - Assistive listening devices
- Communication
 - Amplifiers
 - Augmentative communication devices





Accommodation Services for Individuals with Disabilities

- Training on AT
 - Training on software
 - Dragon Naturally Speaking
 - Jaws
 - Training on hardware
 - PDAs
 - Braille Embossers



Needs Assessments / Tech Demo

CAP Technology Evaluation Center (CAPTEC)

- Assist individuals and supervisors in choosing appropriate computer and electronic accommodations
- Wide variety of assistive technology
 - VTC capability
 - Tours
- Located in the Pentagon (2D1049)
 - 703-693-5160 (V)
 - 703-693-6189 (TTY)





www.tricare.mil/cap

About Us
CAP Initiatives
Media Center
Contact Us

Disabilities Accommodation Solutions Employment Needs News & Events

Real Solutions For Real Needs

CAP provides assistive technology and services to people with disabilities, Federal managers, supervisors, IT professionals, and Wounded Services Members. "We buy it, we pay for it, we get it to the users, it's just that simple." — Dinah Cohen, CAP Director.

[Learn More about what CAP can do for you>](#)

CAP Facts

...and real solutions for real needs...

CAP Programs
CAP provides the leading technology and services to people with disabilities, Federal managers, supervisors, IT professionals, and Wounded Services Members.

CAP Services
...and real solutions for real needs...

1 2 3 4 5 6

Search

Complete Needs Assessment

Complete an [online needs assessment](#) in order to determine the most appropriate Assistive Technology (AT) solutions for you.

[Browse Assistive Technology](#)

[Submit Request Form](#)

CAP Newsletters

Use the checkboxes below to select the newsletters you would like to subscribe to.

CAPtions

Wounded Service Members

Recent News

CAP has won the Presidential Award for Management Excellence - the President's Quality Award for 2008. It was presented to Under Secretary of Defense for Personnel and Readiness, Dr. David S. C. Chu, at a ceremony in Washington, D.C., on Dec. 4, recognizing federal agencies that best achieve the objectives of the president's management agenda. [More >](#)

The U.S. Equal Employment Opportunity Commission (EEOC) issued a new question-and-answer guide aimed at promoting the hiring and advancement of individuals with disabilities in the federal government employment. The new publication is available on the EEOC's web site at www.eeoc.gov/federal/qanda-employment-with-disabilities.html.

LEAD is the EEOC's Initiative to address the declining number of employees with targeted disabilities in the federal workforce. EEOC has created the ABC's of Schedule A which focuses on the [Hiring Manager](#), [the Disability Program Manager](#), and [the Human Resource Professional](#).

Upcoming Events



[Road to Recovery Conference](#) | December 07, 2008

[Perspectives on the Employment of People with Disabilities Conference](#) | December 10, 2008

[CAP Training](#) - San Diego, CA | January 28, 2009



Search

CAP Tools

- [Complete Needs Assessment](#)
- [Browse Assistive Technology](#)
- [Submit Request Form](#)
- [Subscribe to CAP Newsletters](#)

Needs Assessment Instructions

If you are a wounded service member or case manager requesting a needs assessment or assistive technology please visit www.tricare.mil/cap/wsm.

Thank you for choosing to participate in the CAP Online Needs Assessment. This assessment has been designed to take information from you about your job and your disabling condition in order to provide the most appropriate Assistive Technology (AT) solutions for you. Please answer all questions with as much description and information as possible to ensure CAP can make the best recommendations to help you work smarter.

Please note due to DOD security policies, we are unable to save the information you enter until you submit your request at the end of the Assessment. For this reason, once you close your browser or return to a previous step, you will have to re-enter your selections.

[Viewing or printing the PDF documents found on this site requires the use of Adobe Acrobat Reader, which you may download here.](#)





CAP Website Submit Request

[About Us](#)
[CAP Initiatives](#)
[Media Center](#)
[Contact Us](#)

[Disabilities](#) [Accommodation Solutions](#) [Employment Needs](#) [News & Events](#)

Search

CAP Tools

- [Complete Needs Assessment](#)
- [Browse Assistive Technology](#)
- [Submit Request Form](#)
- [Subscribe to CAP Newsletters](#)

Review & Submit Request Form

Your request is not yet complete. Please review the information you have entered and verify that it is correct. Once you select the "Submit Request" button and the end of the page, CAP will receive your information electronically.

Please print this page for your records, and proceed to submit a request.
> [Printer Friendly Format](#)

Date:
February 07, 2006

For Whom Are You Making This Accommodation Request?
I am a Full Time/Part Time Federal Employee

What Department Do You Work For?
Department of Defense

What Agency?
Department of the Navy/Marine Corps

Were You Injured In The Global War on Terror?



Computer/Electronic
Accommodations
Program



Computer/Electronic
Accommodations
Program

www.tricare.mil/cap