



Computer/Electronic  
Accommodations  
Program



**Support. Equip. Empower.**  
Assessing and Accommodating  
Dexterity Injuries

# Webinar Series Overview

- Session 1: CAP and the DoDI 6025.22
  - Mandates of DoDI
  - Overview of CAP services
- Session 2: Assistive Technologies and Needs Assessments
  - Needs Assessments
  - Overview of Assistive Technology (AT)
  - CAP support to MTFs
- Subsequent Sessions
  - Focus on needs assessments and AT per disability area
  - Case studies of needs and solutions



**Support Through Training and  
Needs Assessments**

**Equip with Assistive  
Technology Solutions**

**Empower Through  
Employment**



# Needs Assessments: Process

- The Individual
  - Level of ability prior to injury
  - Familiarity and comfort level with IT and AT
  - Current/future health care *and* career plans
  - How does diagnosis impact/limit ability to perform daily tasks?
- The Injury
  - Diagnosis and prognosis
  - Functional limitations
  - Treatment program
- The Job
  - Can be healing, temporary duty assignment, COAD, or separation
  - Does the SM have access to a computer at the MTF? Home?
  - Is the SM using the computer daily? How long per day?
  - What are typical tasks during the day?
  - What are the specifications of the computer?
- Identify the Accommodations



# Dexterity Impairments

## The Individual

- Current Status
  - Recovery/rehab
  - Temporary duty assignment while receiving medical treatment
  - Already continuing on active duty (COAD)
- Future Plans
  - COAD
  - COAD with new MOS
  - MEB/PED
  - Separating and continuing education
  - Separating and working in private sector



# Dexterity Impairments

## The Individual

- Information Technology (IT) use
  - Personal use only (email, web surfing, games)
  - Professional use only (related to MOS)
  - Personal and professional use
  - Applications used
- Assistive Technology (AT) use
  - Previous user
    - Type/duration/training
  - Non-user
  - Exposure to AT in MTF setting



# Dexterity Impairments

## The Injury/Disability

- Dexterity Disabilities
  - Paralysis
  - Digit or upper-extremity amputation
  - Nerve damage
  - Reduced range of motion (ROM)
  - Shoulder and/or neck injuries
- Dexterity Assessment
  - Review range of motion
  - Gross and fine motor skills
  - Use of one/two hands
  - Previous typing skills



# Dexterity Impairments

## The Job/Task

- COAD
  - Electronic/telecom-based functions
  - Specific applications used
  - Specific tasks performed
- Separating
  - Continuing education
    - E-learning, 'brick & mortar', or both
    - Support services from educational facility
  - Work awaiting in private sector
  - Working in federal sector



# Dexterity Impairments

## Potential AT Solutions

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



# Dexterity Impairments

## Case Study 1:

- Diagnosis
  - Cervicalgia
- Limitations
  - Constant pain in neck and upper back
  - Numbness in dominant arm/hand
- Status
  - Separating and continuing education
- Solutions
  - Alternative keyboard and pointing device
  - Copy holder
  - Telephone headset



# Dexterity Impairments

## Case Study 1:

- Alternative keyboard
  - Keys more easily accessible with one hand
- Alternative pointing device
  - Controls at midline eliminate lateral reaching
  - Controls accessible with open, neutral hand
- Document holder
  - Hard copies at midline, eliminating head turning
- Telephone headset
  - Eliminates reaching for handset
  - Eliminates 'cradling' handset against shoulder



# Dexterity Impairments

## Case Study 2:

- Diagnosis/Limitations
  - Upper and lower extremity injuries due to IED blast
  - Right fasciotomy and nerve graft; index finger amputation
  - Left wrist fusion (non-dominant)
  - Limited fine-motor coordination and strength
  - TBI with short-term memory loss
  - Loss of ability to recall steps in familiar tasks
- Status
  - Separating, continuing education



# Dexterity Impairments

## Case Study 2:

- Solutions
  - One-hand keyboard
  - Alternative pointing device, controls at midline
  - PDA with Schedule Assistant
    - Step-by-step task prompts
    - Visual/graphic/auditory cues
  - Mini-keyboard for PDA



# Dexterity Impairments

## Case Study 3:

- Diagnosis/Limitations
  - Loss of non-dominant upper extremity
  - Limited ROM in upper extremity
    - Unable to raise arm above shoulder level
    - Diminished capability for lateral movement of arm
- Status
  - Separating from active duty
  - Wanted to continue education, but didn't think this was possible



# Dexterity Impairments

## Case Study 3:

- Solutions
  - Voice recognition software
    - All input to the computer
  - Array microphone
    - Eliminated need for assistance with headset
  - Digital voice recorder
    - Record notes from classes in his own voice
    - Download notes to computer
    - Voice recognition software converts notes to text



# Dexterity Impairments

## Case Study 4:

- Diagnosis/Limitations
  - RPG attack
  - Limited ROM in upper extremity
    - Unable to raise arm above shoulder level
    - Diminished capability for lateral movement of arm
  - Complete vision loss
- Status
  - Separating from active duty
  - Saw no capability for work or education



# Dexterity Impairments

## Case Study 4:

- Solutions
  - Voice recognition software
    - All input to the computer
  - Array microphone
    - Eliminated need for assistance with headset
  - Screen reader
    - Complete audio output of all information from computer
  - Bridging software
    - Allows voice input and voice output to work together
  - Certified training



**iSay...**



# Dexterity AT

## Focus on Voice Recognition Software

- Can be appropriate with, or in place of, physical input devices
- Certified training provided upon request
- Variety of microphones/headsets available
- Demo Available at:  
<http://cap.tricare.mil/WSM/NewsEvents/training.aspx>



# Dexterity AT

## Focus on Voice Recognition Software

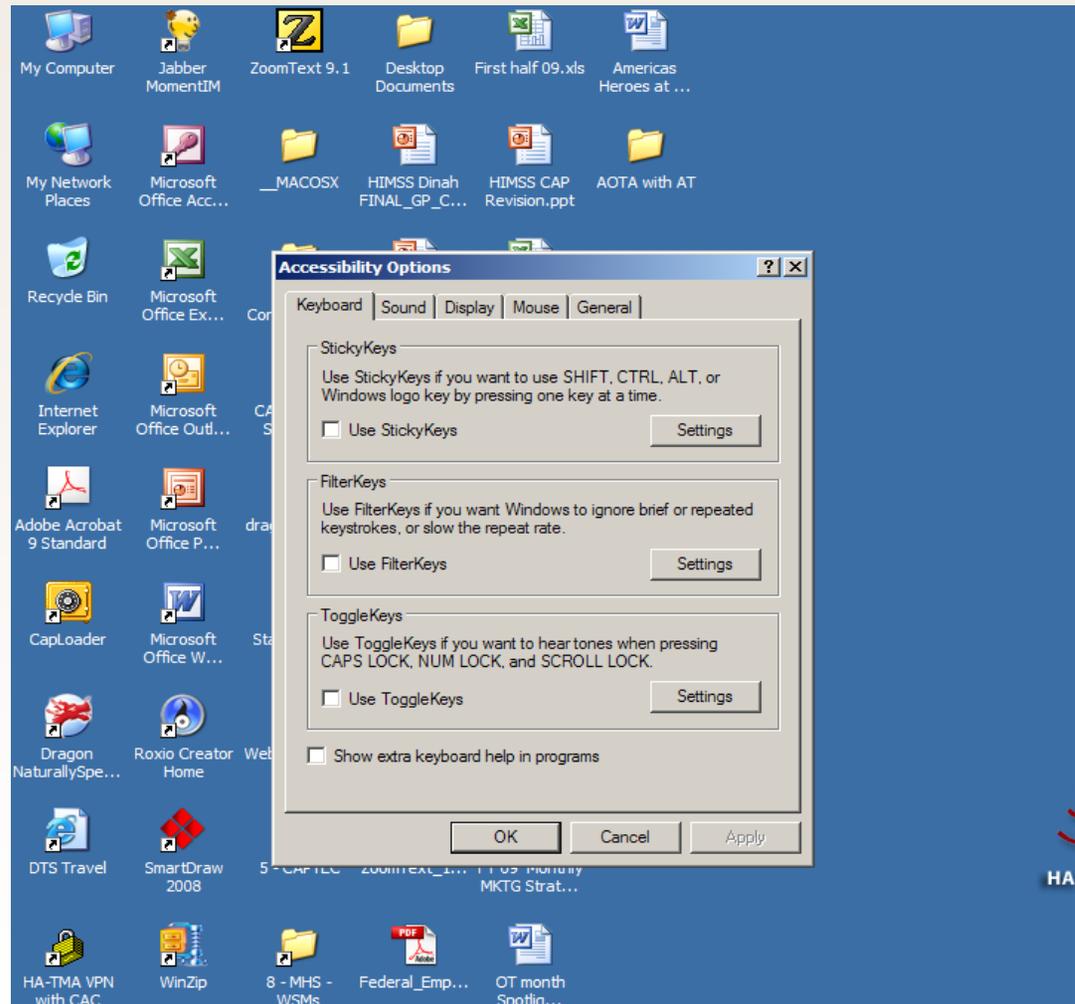
- Computer specifications required:
  - Intel Pentium 4 /1GHz Processor
  - Sound card supporting 16-bit recording
  - CD-ROM drive
  - 2GB RAM (XP)
  - 4GB RAM (Vista)



# Accessibility Features

## Sticky Keys

- From 'Control Panel' select 'Accessibility Options'
- Select 'Keyboard' tab
- Select 'StickyKeys'
- Use 'Settings' to control options, such as auditory notification and key controls



# CAP Technology Evaluation Center (CAPTEC)

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



# www.tricare.mil/cap/wsm

The screenshot shows the homepage of the Computer/Electronic Accommodations Program (CAP) for the Walter Reed Medical Center (WSM). The page features a navigation menu with links for DoD Instruction, Accommodation Solutions, Resources, and News, Events & Training. A search bar is located in the top right corner. The main content area includes a large banner with the text "Support. Equip. Empower." and a video player showing two soldiers. Below the banner are several sections: "Welcome to CAP! How may we help you?" with a "request an accommodation" button; "Need Assistance?" with contact information; "Stay Connected to CAP" with social media icons; "Testimonials" featuring MAJ Ava Craig, Sara Meisinger, and CPT Ivan Castro; and "WSM Spotlight & Upcoming Events" with details about a Hiring Heroes Career Fair.

**CAP** Computer/Electronic Accommodations Program

Search CAP

Need larger text?

my solutions  
Items: 0

DoD Instruction | Accommodation Solutions | Resources | News, Events & Training

## Support. Equip. Empower.

In support of DoDI 6025.22 establishing policy for assistive technology programs in the Military Health System, CAP works closely with wounded Service members across the nation to ensure they receive appropriate AT for their needs. Learn how CAP supports WSM.

1 2 3 4 5

### Welcome to CAP! How may we help you?

Ready to place a request for an accommodation? [Start here.](#)  
Need to [browse assistive technology](#), or help to determine the appropriate accommodation to meet your needs? We can help!

### Need Assistance?

Contact us from 8am-5pm Eastern Time by phone at 703.681.8813, 703.681.3978 TTY, or anytime by email at [wsm@tma.osd.mil](mailto:wsm@tma.osd.mil)

### Stay Connected to CAP

[Twitter](#) | [Email](#) | [Facebook](#) | [RSS](#) | [LinkedIn](#)

### Testimonials

MAJ Ava Craig | Sara Meisinger | CPT Ivan Castro

### WSM Spotlight & Upcoming Events

#### WSM Spotlight

▶ The next Hiring Heroes Career Fair will be held at Walter Reed Army Medical Center on June 9, 2010 [View the dates for the upcoming career fairs](#)

#### Upcoming Events

▶ [Hiring Heroes Career Fair](#) | April 20, 2010

CAP Home | Contact Us | FAQs | Related Links | Privacy | Disability Laws & Policy | CAP Goes Green!



# CAP DoDI Resources



- Full Text of DoDI 6025.22  
[www.tricare.mil/cap/documents/CAP\\_WSM\\_DoDI.pdf](http://www.tricare.mil/cap/documents/CAP_WSM_DoDI.pdf)



- CAP DoDI Handbook  
[www.tricare.mil/cap/documents/CAP\\_WSM\\_Handbook.pdf](http://www.tricare.mil/cap/documents/CAP_WSM_Handbook.pdf)



- Designation of CAP Representative  
[www.tricare.mil/cap/documents/CAP\\_WSM\\_MOU.pdf](http://www.tricare.mil/cap/documents/CAP_WSM_MOU.pdf)



# Contact CAP

- CAP WSM Team  
[wsm@tma.osd.mil](mailto:wsm@tma.osd.mil)
- WSM Website  
[www.tricare.mil/cap/wsm](http://www.tricare.mil/cap/wsm)
- CAP Office  
[cap@tma.osd.mil](mailto:cap@tma.osd.mil)  
703-681-8813
- VTC assessments available through the CAP Technology Center (CAPTEC) at the Pentagon  
703-693-5160

