THE WARRIOR’S SILENT WOUND
WAR FIGHTERS WITH HEARING LOSS ARE WOUNDED

NAVAL HOSPITAL CAMP LEJEUNE
OCCUPATIONAL HEALTH CLINIC
HEARING CONSERVATION
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2009 Informational Public Health integrated focus on USMC hearing loss and its future impact.

CDR Alan Ross MSC, USN

GET BACK-GET BACK!!

Or did he say…

ATTACK-ATTACK!!
MISSION STATEMENT

Our mission is to empower USMC personnel with program expertise and education to improve the safety and quality of life for our fighting forces.

OPERATIONAL AUDIOLOGY PROJECT

Project Objective: Improving the Hearing Conservation Program (HCP) through awareness within the War Fighting community, its impact on Mission Safety and members quality of life.
WOUNDED IN ACTION INJURY LOCATIONS

189 TOTAL WOUNDS

(EYE 0.5%
CHEST 3%
EAR 23%
BACK 5%
ABDOMEN 3%
PELVIS 1%
BUTTOCKS 1%
Groin 0%
FEET 0%
SHOULDERS 5%
HEAD 16%
FACE 9%
NECK 5%
ARMS 13%
WRIST 0.5%
LEGS 9%
ANKLE 2%)

(MILITARY MEDICINE, VOL 170, JUNE 2006)
USMC MISSION IMPACT

- Inability to localize and identify sound sources in a combat environment
- Hearing Loss can place war fighter’s in danger
- Diminished oral communication skills (sending and receiving)
- Ineffective command and control at small unit level with a potential for mission failure
**HEARING LOSS DEGRADES COMBAT PERFORMANCE – WORD INTELLIGIBILITY**

Impacts of Noise on Tank Gunner Performance and Survival
(The effects of poor hearing resolution!)

<table>
<thead>
<tr>
<th></th>
<th>GOOD HEARING</th>
<th>POOR HEARING</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME TO IDENTIFY TARGET</td>
<td>40 SEC</td>
<td>90 SEC</td>
</tr>
<tr>
<td>INCORRECT COMMAND HEARD BY GUNNER</td>
<td>1%</td>
<td>37%</td>
</tr>
<tr>
<td>CORRECT TARGET IDENTIFICATION</td>
<td>98%</td>
<td>68%</td>
</tr>
<tr>
<td>ENEMY TARGETS KILLED</td>
<td>94%</td>
<td>41%</td>
</tr>
<tr>
<td>WRONG TARGET SHOT</td>
<td>0%</td>
<td>8%</td>
</tr>
<tr>
<td>TANK CREW KILLED BY ENEMY</td>
<td>7%</td>
<td>28%</td>
</tr>
</tbody>
</table>

SOURCE: Tank Gunner Performance and Hearing Impairment (Garinther & Peters, Army RD&A Bulletin 1990, Jan-Feb 1-5)
QUALITY OF LIFE IMPACT

- Quality of life - hearing in social settings
- Change of Occupation - no longer meet specific occupation standards
- Denied employment (police, firefighter etc.)
- Financial impact (personal and VA)

“US Troops are suffering the same amount of Hearing Loss as WWII”

US Department of Veteran Affairs
PATIENTS SEEN WITH HEARING LOSS SEP-DEC 2008

PATIENTS FITTED FOR HEARING AIDS SEP-DEC 2008
PATIENTS SEEN WITH HEARING LOSS
SEP-DEC 2009

PATIENTS FITTED FOR HEARING AIDS
SEP-DEC 2009
Problems with the Hearing Conservation Program (HCP)

**OER’s:** *(Occupational Exposure Registry):* Required by base order but most units do not supply them to the Hearing Conservation Dept.

**Participation:** Many units do not participate in the HCP program. Lack of cooperation from unit safety officers.

**Accountability:** Currently hearing is NOT a readiness issue.

**Timing:** Most units wait until a month or two before deployment to book the MOHCAT, or they have personnel tasked with other training while the MOHCAT is scheduled to be testing at their unit.

**Education:** Military personnel are sent for a hearing test but have no idea why.
RESULTS WITH PROGRAM IMPROVEMENT/COMPLIANCE

- Increase combat efficiency
- Decrease potential loss of life in combat
- Clear and concise oral communication
- Preserve quality of life for service members
- Decrease VA costs to government

Elements for Force Health Protection with quality hearing are “essential to maintaining a Healthy and Fit Force and minimizing causalities in both deployed and non-deployed environments.”

CAPT W.R. Stover
Medical Service Corps
Commanding Officer, NMCPHC
FORCE HEALTH PROTECTION

RECOMMENDATIONS

Bring the war fighter into 21st century
- Quiet Pro
- Combat Earplug
- Introduction to Engineering Controls

Set Audiometric standards for readiness

Education throughout the War Fighting Community

Integrate Unit Safety and Unit Surgeons into the process for improvement

“If they can not hear what they need to on patrol, they could jeopardize their life, their buddies, and ultimately their mission.”

Chelsea J. Carter
Associated Press Writer
How to Begin Fixing the Hearing Conservation Program

**OER’s:** Required for unit to receive annual testing for Hearing Conservation, will still offer non-hearing tests, and termination testing for units that have not submitted an OER.

**Participation:** Contact Safety Officers and offer our services.

**Accountability:** Annual HCP compliance reports sent to Commanding Generals.

**Timing:** Provide education to units, make our services more accessible, explain the booking process and STS requirements.

**Education:** Explain results to patients, and how to preserve and protect their hearing.

**Readiness requirement:** As soon as hearing is included as a readiness requirement for deployment, compliance will increase.
CAMP LEJEUNE HEARING CONSERVATION COMPLIANCE & STS REPORT
2009

COMPLIANCE RATE = # IN COMPLIANCE / # ENROLLED IN HCP X 100
STS RATE = # STS / # IN COMPLIANCE X 100

13,069
6,703
649
0

2,000
4,000
6,000
8,000
10,000
12,000
14,000

# Enrolled in HCP
In Compliance
# STS

Compliance Rate 51%
STS Rate 10%
Questions???