MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: TRADOC Heat Injury Prevention Program 2011


2. Heat injuries and heat illness remain a significant health risk for TRADOC Soldiers. In 2010, TRADOC had a total of 282 heat injury incidents, which was a 68 percent increase compared to the previous year. The record temperatures across much of the Nation last year challenged TRADOC leaders and provided a number of valuable lessons learned (see enclosure). The most important planning considerations are the time-proven control measures such as uniform modification, supervised hydration, proper rest, and proper nutrition. A significant lesson from the past year was that early recognition and treatment of a Soldier showing signs of a heat injury will prevent that injury from becoming a casualty. When a Soldier displays the signs of a heat injury, the immediate action to lower the Soldier’s body temperature ultimately can be the difference between the Soldier returning to duty or dying. Commanders and leaders must use composite risk management (CRM) to identify and mitigate the hazards associated with training in a high-temperature environment. CRM provides leaders the situational awareness to make informed decisions based on the most current conditions.

3. We want to continue to be aggressive with heat injury prevention measures that will mitigate the risk of heat injury during training. Review your heat injury prevention plans and update as necessary to incorporate the lessons learned from last year. As a minimum, all commanders will:

   a. Ensure all of our leaders and cadre responsible for training Soldiers in a field environment complete annual heat injury prevention training; view the video simulation “Death of a Soldier, Heat Can Kill;” and discuss the events described in the video and how they relate to local heat injury prevention policies. All leaders, by 15 Apr 11, will be familiar with the risk factors, prevention, and treatment of heat injuries, as outlined in the reference.

   b. Provide refresher training for leaders and cadre who arrive after the initial heat injury prevention training and mid-summer.
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c. Review and test emergency medical evacuation capabilities.

d. Ensure all leaders and cadre are aware of new policies with regard to Soldiers who fail consecutive Army physical fitness tests (APFTs). Those individuals who fail three consecutive APFTs will receive at least 36 hours rest before conducting another APFT.

4. We can minimize the heat risks by controlling hazards associated with rigorous training, planning, quality training, and active leadership. This can be accomplished by ensuring all leaders apply preventive measures and can recognize and treat heat injuries quickly.

5. Victory Starts Here!

Encl
Information Paper

JOHN E. STERLING, JR.
Lieutenant General, U.S. Army
Acting Commander

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Deputy Chiefs of General and Chiefs of Special Staff Offices,
HQ TRADOC
INFORMATION PAPER

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1. Purpose. To provide heat injury prevention references, training resources, and additional guidance on the sickle cell trait (SCT), rhabdomyolysis, the Arm Immersion Cooling System (AICS), and 2010 TRADOC Heat Injury Prevention lessons learned.

2. References:


3. Facts.

   a. Sickle Cell Trait (SCT) - SCT is common and generally harmless to those who possess this trait. More than 3 million Americans have SCT – about 1 in 12 African Americans, about 1 in 100 Hispanic Americans/Latinos, 1 in 2,000 non-Hispanic Caucasians, and almost all normal, healthy lives. However, for some carriers, SCT can pose some health issues. Recent analysis has shown individuals who have the SCT are more prone to death when they have a heat stroke or other heat-related injury brought on by exertion. Often, these exerted heat-related injuries occur during final attempts to pass the Army physical fitness test (APFT) at the end of basic combat training. Therefore, those Soldiers who fail an APFT 3 consecutive times during initial military training should be allowed at least 36 hours rest before conducting another APFT after returning from an FTX or other strenuous activity. 
b. Rhabdomyolysis - Overexertion can cause a condition called rhabdomyolysis where there is a breakdown of muscle fibers, resulting in the release of muscle fiber contents (myoglobin) into the bloodstream. Some of these myoglobin are harmful to the kidney and frequently result in kidney damage. Some common symptoms are abnormal urine color (dark, red, or cola colored); general weakness; muscle stiffness, aching, or tenderness; fatigue; joint pain; and seizures. Implementation of the composite risk management (CRM) process, ensuring proper hydration throughout the training period, and avoidance of excessive repetitions of pushups and squats can prevent heat-related rhabdomyolysis.

c. Arm Immersion Cooling System (AICS) - The AICS is a relatively new heat mitigation device that has been found effective as a simple cooling technology to remove excess body heat. Medical research on AICS prototypes used at Army Training Centers have demonstrated that short-duration (5-10 min) immersion of the hands and forearms in cool (50-68°F) water can markedly lower core temperature to expedite recovery from heat stress and sustain performance. The AICS units stand 40 inches high with a trough 60 inches long and a width of 24 inches, which allows 5 to 6 Soldiers to use the system at the same time. TRADOC and U.S. Army Medical Research and Materiel Command are coordinating with HQDA G-3/5/7 to have the AICS available through the Army supply system. Until the AICS is available in the supply system, there will be a limited number of available AICS units for the 2011 heat season.

d. TRADOC lessons learned from recent heat season.

(1) Conduct pre-season heat injury prevention training each March, as all cadre are required to be trained NLT 15 Apr each year. Provide training to new cadre and ensure all new cadre receive heat injury prevention training before assuming their duties. Include the "Heat Can Kill" video as part of the training material (ref 2d). Ensure Soldiers in training receive heat injury prevention training so a battle buddy will recognize a heat injury and immediately notify cadre.

(2) Conduct heat response drills to prepare units for a real or suspected heat injury. Well-trained units should conduct "man down" drills with their Soldiers in which cadre assess the casualty and have fellow Soldiers bring the iced sheets to the victim. Immediate cooling is the most effective treatment for any heat injury.

(3) Treat all personnel who collapse during training as a heat casualty with immediate cooling treatment (i.e., iced sheets) and contact your local emergency medical services (EMS). Allow the EMS to make the determination of where to take a victim based on the condition of the casualty. Evacuation decision protocols should be kept simple such as signs or symptoms of a heat injury or mental status changes. When in doubt - call 911 and apply iced sheets. Do not attempt to evacuate a casualty yourself.

(4) Use a wet bulb globe thermometer (WBGT) at each company unit to monitor heat conditions in the local area. The local temperature should be compared with the
range control posted temperature, and the unit should use the higher of the two readings. The highest heat category of the day should remain in effect until 0300 hours the following morning.

(5) Provide heat awareness products (e.g., posters, fliers, pocket cards) throughout the unit and training areas. Several awareness products can be downloaded from the U.S. Army Public Health Command Web site (see ref 2f).

(6) Be aware that foot marches from field training are most likely to produce a heat injury/stroke than any other training activity. Implement appropriate control measures (such as hydration) prior, during, and after an event; use work/rest tables; reduce road march distances, if appropriate; make iced sheets available on support vehicles; and use effective internal and external communications.

(7) Use mental status changes as a quick and reliable means to determine if a Soldier has a heat injury. Ask the victim a few simple questions that any conscious person should be able to answer easily. Failing this simple field test is often an indication of heat stroke and should be treated accordingly.

(8) Use Ogden cords or other means to identify the amount of water consumed by Soldiers. This identification method assists the Soldier and the cadre in ensuring personnel are consuming sufficient fluids.

(9) Use of heat injury prevention cards by cadre to assist with heat hazard tracking. These cards provide Soldiers in the unit a list with various risk factors that put them at a higher risk to become heat casualties (i.e., poor fitness, overweight, minor illness, prescriptions, prior heat illness, skin rash, not acclimatized, exposure). Note: This is not a substitute to the CRM process, but to be used strictly as an assist tool.

(10) Conduct quick safety inspections. These can be conducted by installation safety personnel or designated unit personnel to obtain quick assessments with the results reported to battalion commanders or higher. Items to check for during the quick assessment are: WBG Ts, iced sheets, use of Ogden cords, leader cards, and current risk assessments.

Mr. Gerald A. Forest (757) 788-2097
APPROVED BY: COL Karen O'Brien