

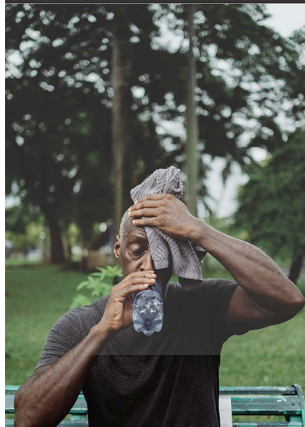


AMES IN ACTION

JULY 2024



EXAMINING TRENDS IN HEAT STROKE AMONG MILITARY SERVICE MEMBERS



WHAT DID AMES DO?

AMES faculty, students, and collaborators recently completed an analysis of data in the Defense Epidemiology Database (DMED), examining trends in diagnoses of heat strokes among military service members from 2016 to 2021. They found that the incidence rate decreased by 5.46%. Service members who were male and younger were overrepresented in heat stroke diagnoses, compared to what would be expected for the size of their subgroups within the military. Junior pay grades and service members in the Army and Marine Corps were also overrepresented in diagnoses.

HOW DOES THIS APPLY TO THE MILITARY, VETERANS, EMERGENCY SERVICES, AND/OR THE COMMUNITY?

Heat stroke is a serious and life-threatening condition that can be caused by exposure to a hot environment or through strenuous physical activity. Military service members and emergency services employees are tactical athletes who perform physically demanding training or work tasks, potentially in extreme environments. It is important to give tactical athletes and their leaders tools to prevent heat strokes during training or work tasks in hot environments.

HOW CAN YOU MAKE A DIFFERENCE?



PROMOTE HEALTH BEHAVIORS

Tactical athletes who have better fitness levels, who are well-hydrated, and who have healthy sleep habits have better cardiovascular protection against heat strokes during physically demanding tasks. Programs can be implemented to increase fitness, create hydration plans, and address obstacles to getting a good night's sleep among tactical athletes.



PREVENT THROUGH POLICY

Policies specific to the military and emergency-services employees can be implemented to reduce risk of heat stroke, particularly when training or working in extreme conditions. These include lower work-to-rest ratios in training, uniform modifications, and internal and external cooling strategies (such as immersion cooling).