



## **Army Doctor: Soldiers Should Avoid Overtraining to Prevent Injury**

25 August 2014 Lisa Ferdinando ARNEWS

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WASHINGTON (Army News Service, Aug. 25, 2014) -- Soldiers should be aware of overuse and overtraining that can lead to injury, and should modify their fitness plans accordingly, an Army doctor said.

"In terms of physical training-related injuries, the first and most important thing is that injuries are the biggest health problem of the Army," said Dr. Bruce Jones, a U.S. Army Public Health Command physician-epidemiologist.

He spoke at a media roundtable held in conjunction with the 3rd International Congress on Soldier Physical Performance, which was held in Boston, Monday through Thursday last week. He and his staff looked at ways to enhance Soldier performance while reducing instances of injury.

Jones said each year some 350,000 Soldiers make about 1.3 million medical visits for injuries. "Fifty percent of those 1.3 million visits are due to overuse training-related injuries," he said.

He noted that research indicates that in both the military and civilian populations, the more physical training a person does, especially running, the higher the risk of injury. It is a paradox, he said, since if you want to become physically fit, you have to train, which then increases your risk of injury.

### **TRAIN, BUT DON'T OVERDO IT**

"Civilian studies and some of ours suggest that there are thresholds of training above which injuries rates will go up, but fitness will either not improve or it will go down," he said.

Jones noted that strategies to prevent overtraining and injury have been successful. For example, he said, a standardized program for basic training in 2003 reduced running mileage, and incorporated more speed work and multi-directional activities like guerrilla drills and grass drills.

"We were able to demonstrate a 40-percent reduction in injury rates doing that," he said. Jones said women tend to enter the service with lower levels of fitness, and have higher injury rates in basic training as compared to men.

However, that does not mean women cannot perform at high levels, Jones said. "There are some

women who can compete, and are functioning at the same level of performance as the highest 20 to 25 percent of men," he said.

## **RECOMMENDATIONS**

Anyone planning to enter the military should begin a physical training program early, and gradually build up fitness, he said.

"The more fit you are in entry to the service, the less likely you will be to be injured," he said.

Whether entering the military or already a member, Jones recommends adopting a well-balanced fitness program that builds muscle and endurance. A fitness program that does not lead to overtraining or overuse can have great results, as the person enjoys the health benefits of the active lifestyle and avoids injury.

"Other injury-prevention measures would be things like 'wear your seatbelt' and a surprising thing that most people would not think about in terms of injury prevention is smoking cessation," he said. He said studies have consistently found the more people smoke, the more likely they are to get injured, in the Army.

"There is a lot of speculation as to why, but there are a number of studies that show that healing is delayed in smokers, surgical wound healing takes longer in smokers, (and) fracture healing takes longer," he said.

"Something about smoking seems to impair the healing process," he said.

Most of the injuries in the Army are overuse injuries, as the result of repetitive trauma causing "microdamage," he said.

A smoker typically would not be healed from microdamage before more damage could occur, he said.

"If you're a smoker, that healing process takes place more slowly, so there could be an accumulation of microdamage that actually ends up being an injury," he said. "That's our hypothesis."

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