

## **Injuries During Basic Military Training. Sport training vs Military Training in Naval Cadets**

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Musculoskeletal injuries are a common occurrence during the period of Basic Military Training (BMT). During BMT period it has been estimated that 25% of the male and 50% of female trainees experience injuries. Overuse musculoskeletal injuries were more common than acute injuries, representing 65% and 35% of injuries, respectively. The purpose of the present observation was to focus on the effects of athletic training vs military training during BMT period and to monitor the musculoskeletal injuries of the Greek Naval cadets.

Forty five (45) healthy male Greek Naval cadets participated in this observation (age  $18.23 \pm 0.54$  years, body mass  $75.80 \pm 3.56$  kg, and body height  $1.79 \pm 0.04$  cm). The cadets were randomly separated in two groups, group1 (AT=21) exercised with athletic training and wore sports shorts, a T-shirt and sports shoes and group2 (MT=24) trained with a military combat uniform and boots. The BMT period lasted 5 weeks, 6 times/week from Monday to Saturday, from which 4 days included physical fitness and 2 swimming training while they performed 27 training sessions in the morning and 27 in the afternoon. An injury was registered when cadets felt pain or complaint during BMT and visited a military physician and the musculoskeletal injuries that were recorded were muscle pain, tendon, stress fracture, and joint or ligament injury. Every injury for which a cadet had to consult a

physician (unit medical officers and conscripted physicians) was registered and documented.

During the 5 weeks of BMT 36 injuries were recorded, for AT 6 (16.7%) injuries and MT 30 (83.3%) injuries ( $t = -4,243$ ,  $p < .05$ ). Both groups recorded 50.0% joint/ligament injuries, 16.6% stress fractures, 22.2% tendon and 11.1% muscle injuries. The AT group recorded 66.7% joint/ligament injuries, 16.7% a stress fracture and 16.7% a tendon injury. The MT group recorded 46.7% joint/ligament injuries, 16.7% stress fractures, 23.3% tendon and 13.3% muscle injuries.

The results showed that the burden of exercise on BMT period which is carried out in military combat uniform caused several injuries in relation to sportswear. Ways to avoid it can be a carefully designed exercise program according to the principles of coaching, the gradual increase of intensity and total volume.

Key words: Basic Military Training, military combat uniform, injuries, Naval cadets