The overuse injuries are the quite frequent health problems especially among new conscripts. The purpose of the present study was to assess the entity, location, and patterns of muscle-skeletal injuries in conscripts and its relationship to the injuries of the pre-service time and to the different kind of duty. Present research includes the data of 598 male conscripts (n= 598 on start of conscript time; n= 426 at the end of conscript time; age range 18-26; mean 20) who served in army in years 2000-2002. The data was collected during the entire service year of conscripts by the medical record analysis, questionnaires and physical tests. Present investigation took place in three stages. At the end of each stage some changes were applied into physical education of unit to improve it’s effectiveness and to decrease overuse traumas. At the end of the first stage of study (in Jan. 2001) next changes were applied – the morning exercises were carried out by sport wear and sport shoes (instead of the uniform and marching boots), the treadmill march and jog for freshmen was stopped. At the end of the second stage of study (in Dec 2001) next changes were applied – the conscripts were divided into 3 endurance training groups according to the results of first physical running test; the average speed of groups was taken into account for resistant training ; there was limited the morning wake up running until 3 km. On third stage of study (Dec 2001 –Dec 2002) the effectiveness of applied changes was checked. Daily some kind of health problem (in service period) were found in 10 % of conscripts, among of them in 67 % have appeared the overuse traumas. The prevailing health problems were the knee joint pain, periostitis, metatarsus troubles, back problems and spring joint illnesses. Next findings appeared in the structure of overuse injuries after first changes were applied – overuse knee injuries declined from 32% to 23%, periostitis from 36 % to 16%, metatarsus bone pain from 22 % to 7%, back problems from 31 % to15 %, ankle injuries increased from 6% to 10%. Some serious health problem in muscle skeletal part of body were found in 66 % of the soldiers before entering service (fracture, back pain,head trauma, knee joint injury, metatarsal illness, ankle problem). None of the young men had registered periostitis before entering service. This illness is representative of the general conscript population during their military service. The prior (in civilian life period) traumas returned during the conscript time in 52 % of the conscripts. The new injuries appeared in 51 % of conscripts. On second stage of research the number of soldiers who were found periostitis, was decreased 2,4 times. The number of soldiers who were found stress fractures lessened 3 times. The sentry duty and marching (about 40 km) turned out to be a greatest influence on overuse traumas, following them there were all kind of field exercises and infantry running.

The correlation analysis brought out the dependence of injuries they received on conscript time with the injuries they have appeared before entering service (r = 0.82, p < 0.05).

Keywords: Overtraining, Physical Load, Traumatology