The Eurofit test battery (EUT) measures the physical fitness level. In Hungary Frenkl et al (1996) published the reference scores of university students. The question is the following: what is the difference between the results of P.E. students, who are trained sportsmen and normal people? What physical characteristics can be shown among trained athletes by Eurofit?

The aim of the research was to characterize the fitness level of students in P.E. Teacher Training. The goal was to develop a unisex sum score evaluation system and to show the differences between male and female athletes. Students of Semmelweis University Faculty of Physical Education and Sport Sciences (TF) were measured at their fifth semester in the autumn of 2006. In the examined sample there were trained athletes (N=122, 66 male, 56 female in 30 branches of sport). The EUT consists of 8 tests: Flamingo Balance (FLB), Plate tapping (PLT), Sit and Reach (SAR), Standing Broad Jump (SBJ), Sit up (SUP), Bent Arm Hang (BAH), Handgrip (HGR) and a Shuttle Run (SHR). The students’ height and weight were also measured, and from these data the Body Mass Index (BMI) was calculated. The unisex sum score that comprehended the whole sample (N=122) was evaluated by standardized values according to the recommended methods of EUT protocol (Barabás, 1993), where 20 points can be obtained in each test items and 1 point embraces 0,25 extent of standard deviation.

Data were sorted out, checked, and the means between males and females were compared by a Discriminant Analysis. The students of TF showed better results than the reference scores of other Hungarian students (p<0,001) in every items of Eurofit. It was interesting that the value of BMI was comparatively high. But in this case it refers rather to the big mass of muscles than the excess weight. The Discriminant Analysis showed significant difference (p<0,001) between the results of males and females. Mainly this was caused by the strength tests (HGR, BAH, SBJ). The discriminate model according to the classification results is reliable in 99%. The differences between sexes can be well seen in the star diagram that comprises the standardized results.

During the research a unisex sum score evaluation system to Eurofit test was made that is typical to sportsmen. The advantage of this is that the score in itself characterizes the differences between sexes. According to the expectations significant difference between the values of this sample of athletes and the reference scores of Hungarian non-athletes were proven. The sexual characteristics could be unambiguously characterized with Discriminant Analysis in the Eurofit results. In the future this research will be expanded to the direction of distinction according to different sports.