27th ECSS Anniversary Congress, 30.08 – 02.09.2022

Examination of Body Types of Powerlifters

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INTRODUCTION:
Specific body sizes (Nádori, 1991; Balogh at all, 2015) and body types are important selection criteria for professional athletes (Biróné, 2014). The aim of this study is to determine the main body sizes and body types of competitors in the sport of powerlifting. The results are compared with those described in the international literature.
METHODS:
All Szombathely-based male powerlifters aged 18 and over participated in our study (N = 18). Their mean age was 28.4 ± 9.4 years. The InBody720 Body Composition Analyser device was used for the examination of the body composition, and an anthropometric measurement (Martin & Saller, 1957; Weiner & Lourie, 1969) was performed to determine the body size, during which 24 different parameters were recorded. From the obtained data, we determined the body type of the subjects based on the 6 types developed for athletes by Mészáros (1990). Basic statistics and a correlation matrix were used to evaluate the results.
RESULTS:
Athletes had an average height of 177.44 ± 7.12 cm, an average body weight of 97.01 ± 14.12 kg, an average body fat weight of 15.95 ± 6.77 kg, an average body fat percentage of 16 ± 5.12%, an average skeletal muscle weight of 47.2 ± 6.15 kg and an average BMI of 30.4 ± 2.91. A strong correlation was found between skeletal muscle mass and right and left arm mass (r = 0.99), and between skeletal muscle mass and torso mass (r = 0.99). BMI correlated with chest depth and circumference (r = 0.87) and with forearm circumference (r = 0.88). Skeletal muscle mass was significantly correlated with limb muscle mass (right arm r = 0.99, left arm r = 0.98, right leg r = 0.95, left leg r = 0.93) and torso weight (r = 0.99). The body type of the participants was endo - mesomorphic (8 individuals) and mesomorphic (10 individuals).
CONCLUSION:
Since the goal in powerlifting is to move great weights, the sport assumes significantly developed musculature (Ferland at all, 2020), and the body type of athletes is characterized by the endo - mesomorphic and mesomorphic types (Mackenzie, 2001). According to the results obtained, the athletes in the study have the appropriate body type and muscle mass required for powerlifting. Half of their average body weight is muscle mass, distributed evenly to the right and left, and between the torso and the legs. From this it can be concluded that the training performed in the sample meets the criteria of the sport.

Topic: Training and Testing

Presentation form: E-poster

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