

A STUDY OF THE ANTHROPOMETRIC CHARACTERISTICS OF PERFORMANCE ATHLETES - DIAGNOSIS AND TRAINING GUIDELINES

Gabriel Mangra, Gheorge S. Dragoi, Elena T. Rinderu,
Universitatea din Craiova, Craiova, Romania

KEY WORDS: anthropometry, diagnosis, training process

INTRODUCTION: Anthropometry studies the physical measurements of the human body in order to determine the main characteristics (and their differences) characterizing different individual groups. Many physical measurements are required to describe and differentiate the characteristics, taking into consideration sex, age, and occupational aspects. Performance athletes represent a special category from this point of view, because their activity is highly influenced by the training process, especially when it is not well directed. The present study presents the results obtained by analyzing some important anthropometric characteristics of a female basketball team (first Romanian league).

METHODS: The measurements were made for 10 female basketball players. The criteria employed in appreciating the anthropometric characteristics had in principle a somatophysiological character. The obtained results were compared with the optimum profile of the basketball player. The body composition was also studied in correlation with dynamometric and miotonometric measurements, using the method of 5 fat tissue layers.

RESULTS: A few of the results obtained are summarized below. From the point of view of orthostatic position, 30% of the subjects had a very good (VG) position, 60% a good (G) position and 10% a bad (B) position (Fig. 1). In Fig. 2 the results are presented for the shape of the thorax (NT-normal thorax, CT-cylindrical thorax, PT-plane thorax). An important and delicate aspect of this study was the analysis of body composition. The results were unexpected, all the subjects having a higher percentage of fat tissue than admitted in basketball (>11%).

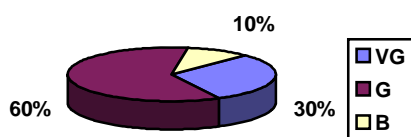


Fig. 1

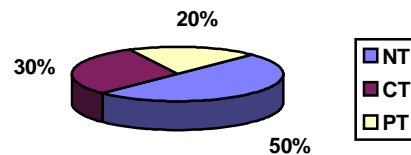


Fig. 2

CONCLUSIONS: The present study analyzes many anthropometric characteristics of female basketball players. Guidelines for improving the training process are presented, in conjunction with medical and rehabilitation aspects.