

## Body Types of Softball Players in the 39th National Games of Thailand

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**Abstract :** The purpose of this study was to investigate the body types, size, and body compositions of softball players in the 39th National Games of Thailand. The population of this study was 352 softball players who participated in the 39th National Games of Thailand from which a sample size of 291 was determined using the Taro Yamane formula and selection is made with stratified sampling method. The data collected were weight, height, arm length, leg length, chest circumference, mid-upper arm circumference, calf circumference, subcutaneous fat in the upper arm area, the scapula bone area, above the pelvis area, and mid-calf area. Keys and Brozek formula was used to calculate the fat quantity, Kitagawa formula to calculate the muscle quantity, and Heath and Carter method was used to determine the values of body dimensions. The results of the study can be concluded as follows. The average body dimensions of the male softball players were the endo-mesomorph body type while the average body dimensions of female softball players were the meso-endomorph body type. When considered according to the softball positions, it was found that the male softball players in every position had the endo-mesomorph body type while the female softball players in every position had the meso-endomorph body type except for the center fielder that had the endo-ectomorph body type. The endo-mesomorph body type is suitable for male softball players, and the meso-endomorph body type is suitable for female softball players because these body types are suitable for the five basic softball skills which are: gripping, throwing, catching, hitting, and base running. Thus, people related to selecting softball players to play in sports competitions of different levels should consider factors in terms of body type, size, and body components of the players.

**Keywords :** body types, softball players, national games of Thailand, social sustainability

**Conference Title :** ICECESS 2014 : International Conference on Environmental, Cultural, Economic and Social Sustainability

**Conference Location :** Venice, Italy

**Conference Dates :** April 14-15, 2014