

## **Somatic and Physical Characteristics of Adolescent Female Volleyball Teams at Different Success Levels**

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**ABSTRACT** The purpose of this study is to compare anthropometric characteristics and physical performance of girl volleyball players who are adolescent girls aged around 14 years old, and participated in national championships with different success levels. The subjects of the study consisted of 60 volunteering girl volleyball players. Anthropometric measures were used for anthropometric and somatotype characteristics. Hand strength test, leg and back strength test, flexibility, knee-bend sit-up, vertical jump test, 20,-meter sprint test and bruce test for maximal oxygen consumption were used for measuring physical performance. As a result, the endomorphy values of the 2<sup>nd</sup> group's players were significantly higher ( $p < 0.05$ ) than those of the 1<sup>st</sup> group's volleyball players. The new regression formula developed from this study is as follows:  $\% \text{ fat} = 0.126(\text{thigh skf.}) + 0.626(\text{triceps skf.}) - 0.637(\text{biceps skf.}) + 0.955(\text{BMI}) - 13.144$  ( $R=0.836$  and  $SEE=1.33\%$ ). Successful girl volleyball players had a dominant somatotype profile, ectomorph structure, and lower ratio of body fat.