

## Effect of Resistance Training on Muscle Strength, IGF<sub>1</sub>, and Physical Performance of Volleyball Players

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**Abstract :** The aim of the study is to assess the effect of resistance training on muscle strength and physical performance of volleyball players of Physical Education College, Helwan University. The researcher used the experimental method of pre-post measurements of one group of 10 volleyball players. The execution of the program was through the period of 12/8/2018 to 12/10/2018; included 24 training units, 3 training units weekly for 8 weeks. The training program revealed an improvement in post measurement of muscle strength, IGF<sub>1</sub> (insulin-like growth factor 1), and physical performance of players. It may be concluded that the resistance training may include changes in hormones and muscle fibers leading to hypertrophy of the muscle and physical performance. It is recommended to use the results of the study in rationing the loads and training programs.

**Keywords :** IGF<sub>1</sub>, muscle strength, physical performance, resistance training, volleyball players

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