

Karn Choungboonsri 2010: Effects of Dynamic and Plyometric Push-ups on Muscular Strength, Endurance, Power and Body Composition. Master of Arts (Physical Education), Major Field: Physical Education, Department of Physical Education. Thesis Advisor: Associate Professor Kornrawee Boonchai, Ed.D. 167 pages.

The purpose of the research was to study the effects of dynamic and plyometric push-ups on muscular strength, endurance, power and body composition. Thirty male volunteer subjects majoring physical education, Kasetsart University, were divided into two groups, 15 for each group. The first experimental group trained with dynamic push-ups program while the second experimental group trained with plyometric push-ups program. Both groups were trained three day a week for 8 weeks. Muscular strength, endurance, power and body composition were pre-tested and post-tested after the eighth week of training. The data were analyzed by using mean, standard deviation, dependent t-test, one-way analysis of covariance.

The results were as follows: 1) After 8 weeks of training, muscular strength, endurance, and power of both groups increased significantly at the .05 level. 2) The girth size of the right and left upper arm, right and left forearm, chest, and shoulder of both groups decreased significantly at the .05 level, but the girth size of other muscle groups did not change. 3) After 8 weeks of training, skinfold thickness of chest, triceps, and abdomen of both groups decreased significantly at the .05 level. The dynamic push-ups group showed significant decreases on biceps, but there was no significant change on calf. The plyometric push-ups group had no change on biceps and calf. 4) After 8 weeks of training, there were no significant differences on muscular strength, endurance, power and body composition between two groups at the .05 level.

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Thesis Advisor's signature