

KHANTI PUTTHAPONG : EFFECTS OF SUPPLEMENTARY TRAINING BY
PLYOMETRICS ON ATHLETES' LEG MUSCULAR POWER. THESIS ADVISOR :
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The purposes of this research were to study and compare the effects of supplementatary training by plyometrics on athletes' leg muscular strength and muscular power.

Subjects were 30 athletes on the school team studying at chulalongkorn University Demonstration School, whose ages were 14-17 years old academic year 1991. Prior to the experiment, the volunteered subjects were tested in leg muscular strength and muscular power and then divided into three groups by using matched group method. Each group had 10 subjects. The first group was trained for only normal program and was assigned as a control group, the second group was trained for normal program and supplementary training by plyometrics for 2 days a week and the third group was trained for normal program and supplementary training by plyometrics for 3 days a week. Each group was trained for 8 weeks. Data from leg muscular strength and muscular power before, between and after the experiment were analyzed in terms of means, standard deviations, one-way analysis of variance, Tukey (a) method and t (t-test).

It was found that:

1. Before and after an experiment, the increased means of leg muscular strength and muscular power of the first group was trained for only normal program, the second group was trained for normal program and supplementary training by plyometrics for 2 days a week and the third group was trained for normal programs and supplementary training by plyometrics for 3 days a week were significantly different at the .05 level. Before and after 6 weeks of the experiment, the increased means of leg muscular power of the second group was significantly different at the .05 level.
2. After the experiment for 8 weeks, there were no significantly different among three groups of training at the .05 level.