

Thesis Title            A Study of the    Physical Fitness of Chiang Mai  
Varsity Athletes Participating in the Thirteenth  
University Games of Thailand  
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#### ABSTRACTS

The purposes of this reseatch were to study and compare the selected physical fitness variables of Chiang Mai Varsity athletes who participates in the thirteenth University Games of Thailand.

The subjects were 242 male athletes and 105 female athletes. The selected physical fitness variables in this reaearch were : resting heart rate, resting systolic blood pressure, lung capacity, flexibility, grip strength, back strength, leg strength and maximum oxygen uptake. The obtained data were then analysed in order to find the means and standard deviations and the One-way Analysis of Variance in which the significant difference among groups were determined.

The results of this research were :

1. The means of test items of male athletes were 74.63 beats per minute for the resting heart rate, 115.25 mm.Hg. for the resting systolic blood pressure, 75.89 mm.Hg. for the resting diastolic blood pressure, 3449.38 milliliters per body weight for the vital capacity, 11.58 centimeters for the body flexibility,

41.31 kilograms per body for the grip strength, 97.21 kilograms per body for the back strength, 158.11 kilograms per body for the leg strength and 48.89 milliliters per body weight per minute for the maximum oxygen uptake.

2. The means of test items of female athletes were 80.09 beats per minute for the resting heart rate, 107.87 mm.Hg. for the resting systolic blood pressure, 68.33 mm.Hg. for the resting diastolic blood pressure, 2547.24 milliliters per body weight for the vital capacity, 13.13 centimeters for the body flexibility, 26.52 kilograms per body for the grip strength, 60.53 kilograms per body for the back strength 110.83 kilograms per body for the leg strength, and 44.36 milliliters per body weight per minute for the maximum oxygen uptake.

3. The results of the comparison of the physical fitness variables of Chiang Mai university's male athletes in the heavy endurance sport type groups were : the grip strength of tennis players was better than those of the hockey-players, the maximum oxygen uptake of the soccer-players, rugby-football-players and hockey-players were better than those of the tennis-players and the oxygen uptake of the hockey-players was better than the volleyball-player and basketball-players.

4. The results of the comparison of the physical fitness variables of Chiang Mai university's male athletes in the medium endurance sport type groups were : resting systolic blood pressure of the softball-players was better than the swimmers, the flexibility of the sepak-takraw-players was better than the sword-fighters, the back strength of the softball-players was better than the judo-players sepak-takraw-players and sword-fighters, the back strength of the boxers was better than the sword-fighters, the back strength of the

swimmers was better than the sword-fighters, the maximum oxygen uptake of the boxers was better than sword-fighters and judo-players.

5. The results of the comparison of the physical fitness variables of Chiang Mai university's male athletes in the low endurance sport type groups were : the lung capacity, grip strength of the rifle-shooters was better than the indoor-sport type athletes.

6. The results of the comparison of the physical fitness variables of Chiang Mai univeristy's female athletes in the heavy endurance sport type groups were : the lung capacity and back strength of the basketball-players was better than those of the hockey-players, the back strength of the basketball-players was better than the tennis-players, the back strength and leg strength of the volleyball-players was better than the hockey and tennis-players, the leg strength of the basketball-players was better than the tennis-players.

7. The results of the comparison of the physical fitness variables of Chiang Mai university's female athlotes in the medium endurance sport type groups were : the back strength of the softball-players was better than the sword-fighters-players.