

Independent Study Title The Effect of Oral Calcium Supplementation on Post-exercise Serum Calcium Level

Author Naruechol Chuenjamnong

Degree Master of Science (Anti-Aging and Regenerative Science)

Advisor Karnt Wongsuphasawat, B. Pharm, Ph. D.

ABSTRACT

The previous researches were studied in regard to extensive exercise related with calcium loss and subsequently lead into lower level of Bone Mineral Density (BMD). It was indicated that this loss of calcium during endurance activities could be occurred from excretion of sweat; calcium is a mineral type in electrolyte. With this constant condition, it possibly affects serum calcium and bone health afterward. The study therefore was designed to understand oral supplementation of calcium in sport men is able to remain calcium level in plasma as optimized. The research was completed with 17 healthy men in testing exercise under experimental situation by using standard of Metabolic Equivalents (MET) as a measure of energy expenditure. The exercise of this study was set at 10.4 MET exercise to ensure it was on a level of heavy exercise test. The subjects were repeatedly exercise test on day 1 & 2, however oral supplementation of calcium was taken on testing day 2 as to determine serum calcium on post-exercise. However, the results were statistically significant in serum calcium level after studies. It could be a few factor affected its result; period of study, intention of exercise and its methodology. Further studies with re-designed method on

research is required as to identify the effect of calcium supplementation in heavy exercise men.

Keywords: Calcium loss/Heavy exercise/Calcium supplementary/Serum calcium

