

Thesis Title	Serum levels of reproductive hormones, cortisol and lipids in thai male vegetarians.
Name	Nuananong Jirakanjanakit
Degree	Master of Science (Physiology)
Thesis Supervisory Committee	Pachara Visutakul, M.D., Ph.D. Supornpim Chearskul, M.D., M.Sc. Suwana Hungspreugs, M.D. Cert. of training in Pulm Physiology.
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#### ABSTRACT

Vegetarian diets are quite popular and consumed by many Thai people either for religious reason or personal purpose. Moreover, some people believe that vegetarian diets could lead to a good health. Although, many researchers have investigated into the nutritional status of Thai vegetarians, but there is still no information on reproductive hormones status in Thai male vegetarians.

The serum levels of total-cholesterol, HDL, LDL and triglycerides, cortisol and reproductive hormones i.e. LH, FSH, PRL and testosterone were studied in 45 vegetarian men in comparison to 42 non-vegetarian men. Two blood samples were drawn from each subject at 2 weeks interval. Blood samples were then analysed for lipids and hormones. Serum lipids were measured by enzymatic colorimetric method and hormones were determined by radioimmunoassay.

In vegetarian group, all serum lipids i.e. serum total-cholesterol, LDL, triglycerides including HDL levels were lower than in non-vegetarian group. However, when the vegetarian were further divided into subgroups according to the years of being vegetarians, it was found that all lipids values were still significantly lower in all subgroups of vegetarian except the HDL values of the long-year(5<sup>+</sup>-13 years) vegetarian group which tend to increase compared to the less than 5 year group and was comparable to the value of non-vegetarians.

Serum levels of LH and FSH were higher while PRL, cortisol and testosterone were lower in vegetarian compared to non-vegetarian with statistically significance. When the the FSH and PRL values of all subgroups of vegetarian were considered, similar results was observed. Whereas only the LH levels of the 2<sup>+</sup>-5 years group was higher and the cortisol and testosterone values of the 1-2 years group were lower with statistically difference than those of non-vegetarian group.

These observations indicated that vegetarian diets are associated with changes in serum lipids and reproductive hormones status. Since it is not yet known exactly what are specific dietary nutrients which influence the reproductive system and lipid metabolism in vegetarian men, this finding of a difference in serum lipids and reproductive hormones levels need further investigation.