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## Haemoglobin Content, Ferritin And Child Growth After Iron, Vitamin A And Vitamin C Supplementation Among Elementary School Students At Makassar City

**Saifuddin Sirajuddin**

*Hasanuddin University, Indonesia*

The purpose of this study was to discover the effect of iron supplementation combined with vitamin A and C once a week for three months on the hemoglobin content, ferritin and growth of elementary school children at Makassar City. Eighty anemia children selected randomly from three elementary schools at slum area, 40 have given Fe only and 40 given Fe combined with vitamin A and C. The measurement of the effect was done by comparing the Hb content and growth of children for two groups at the end of intervention and six months after intervention period for both group. The results of the study indicated that, there were a significantly different of Hb after the end of intervention compared to the Hb content six months after the end of intervention period ( $p < 0.05$ ). The provision of supplementary Fe combined with vitamins A and C gives the Hb content higher than without the vitamin supplement ( $p < 0.05$ ), whereas the ferritin content is not different significantly ( $p > 0.05$ ). There is a significant increase in growth and height of the children at the end of intervention and after six month of intervention period ( $p < 0.05$ ) for both groups. There is no significant height increase in both groups ( $p > 0.05$ ). The provision of iron combined with vitamin A and C keeps the Hb content normal until six months after the end of intervention period and increases the growth of the children. Finally we can conclude that, supplementation of Fe combined with vitamin A and C were better then Fe only to increase Hb, ferritin and growth of children.

### Oral A3.e

## The Prevalence Of Total Goiter Rate In Three Different Geographic Areas In Jazan Saudi Arabia

**Umar Yagoub Mohammed, Elsawi Husam, Gaffar A., Bani Ibrahim, Elsanosi Rashad**

*Medical Research Center. Jazan University, Saudi Arabia*

participants. Fruit consumption did not significantly across diet types. However, individuals following calorie restricted diets consumed less servings of vegetables than those following a combination of approaches ( $M=2.69$ ) or following what they ate ( $M=2.73$ ;  $p < .05$ ). Individuals following calorie restricted ( $M=4.53$ ) or low carbohydrate (4.61) diets consumed significantly less fruits and vegetables per day than following a combination of approaches ( $M=5.44$ ), following what they ate ( $M=5.21$ ) or following a low fat diet ( $M=5.17$ ;  $p < .05$ ). Portion control is an effective way to lose weight, however individuals are affecting long term health but reducing consumption of fruits and vegetables along with other

Oral A3.c

## High Fat And High Energy Diet With Phytosterols Supplementation Lowering Serum LDL-C Level And Improving Spatial Memory Ability In Mice

**Jiao-Ling Yu, Wei-Wei Ma, Yuan-Di Xi, Lin-**

**Jing Yuan, Rong Xiao**

*Central Medical University, China*

Maternal-offspring studies show maternal high fat and high energy diet (HFE) is deleterious to offspring cardiovascular and mental health. Few studies illustrated the effects of early intervening dietary functional factors. So, in this study, we investigated the effects of phytosterols enhancement HFE (HFE + PS) during pregnancy and lactation to mother and offspring from weaning to when they were adult to investigate its effects on serum cholesterol level, water maze performance ability and brain PPAR1 mRNA and protein expression in C57BL/6j mice. The results indicated that compared to HFE group, HFE + PS diet feeding significantly decreased serum low density lipoprotein cholesterol level, changed the brain PPAR1 mRNA and protein expression levels and alleviated the detrimental effects of HFE. Collectively, these observational results give preliminary evidence that life long phytosterols supplementing might be a useful way to eliminate the detrimental effects of HFE diet.

Oral A3.d