

## ICCN Poster Presentations

### Obesity

#### **Relation between calcium and magnesium intake and obesity**

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**Aims:** Nowadays there is much evidence available about the relation between dietary calcium and human body weight control mainly in the case of adults. According to data from the literature increasing Ca-intake results in a smaller amount of body fat. On the other hand, there is only very limited data in the literature available on the magnesium intake of overweight people. This has been studied in the case of 10 to 14-year-old obese students and those with high body fat %.

**Methods:** The survey of dietary habits was carried out with a self-administered questionnaire. A detailed registration of food and drinks consumption in three days (two weekdays and one Sunday) was requested. The survey was completed with a personal interview in order to achieve more accurate data processing. The data of the questionnaires were processed with the help of the X diet-planner program. The study involved 80 students (40 obese, 40 controls).

**Results:** In this study the calcium and magnesium-intake of students is less than the recommended value (Ca: 1000mg/day; Mg: 350mg/day). Calcium intake in the obese group was significantly lower than in the control group ( $\Delta = 17\%$ ) ( $P < 0.05$ ). Daily calcium intake is especially low in case of the very obese children (BMI>30). The consumption of milk, dairy products, vegetables and fruits is decreasing, the consumption of sweets and soft drinks is increasing. In some cases of extreme obesity we find a very little calcium intake (300-400 mg/day), whilst its lowest value in the control group was 640 mg/day. Magnesium intake in the obese group is significantly lower than in the control group ( $\Delta = 21\%$ ) ( $P < 0.05$ ).

**Conclusions:** There is more and more evidence that diets with low calorie content and rich in calcium may provide protection from obesity. It is not enough to increase calcium intake, the sufficient intake of magnesium is also crucial because otherwise cardiovascular imbalance can occur. This is a further excellent argument why the healthy, well-balanced diet has to include low fat content dairy products.

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#### **Dietary intake, lifestyle factors and nutritional status of Indian adult males in Kampung Indian Settlement, Batu Caves, Selangor**

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A study was conducted to determine the dietary intake, lifestyle factors and nutritional status of adult Indian male residents of Kampung Indian Settlement, Batu Caves, Selangor. A total of 91 adult Indian males who fit the criteria of selection were selected as respondents for the study. Data were collected using a questionnaire and anthropometric measurements. The respondents ranged in age from 25 to 59 years old with a mean income of RM1699.56  $\pm$  1251.60 per month. All but one was married with 1 to 6 children. More than forty percent of the respondents were either categorized as overweight (37.4%) or obese (5.5%). However all respondents had waist to hip ratio (WHR) of less than 1.0 and were categorized as having "low risk" for android obesity. A total of 61 (67.0%) respondents were current smokers and the mean number of cigarettes smoked was 10.9  $\pm$  5.8 cigarettes per day. Sixty-eight (68) or 74.7% of the respondents consumed alcohol and of these a majority (42.2%) were consuming alcohol 2-3 times per week. Only 24 (26.4%) of the respondents were regularly exercising but of these more than a third (37.5%) were exercising less than 3 times per week. Most respondents (93.4%) consumed rice as their staple food every day. In general, respondents were observed to have high intakes of protein, vitamin A, calcium and vitamin C, which were above 2/3 of the Malaysian RDA. The mean percentage caloric contributions of carbohydrate, fat and protein to the total caloric intake were 60.6%, 25.4% and 14.1% respectively. The respondents' weight management knowledge was generally poor with a majority (71.4%) scoring less than 50% of the total score. The study recommends a nutritious diet and healthy lifestyle promotion program to motivate respondents to change their lifestyle and dietary habits.