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## Dietary Intake Amongst 'Well To Do' Adolescent Boys and Girls in Delhi

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It is well known fact that prosperity of a nation depends upon the quality of its human resources. The young women who are at the brink of womanhood, constitute the most crucial segment of our population from the point of view of the 'quality' of our future generation. Adolescence is a period of peak growth for boys and girls(1). Food and nutrient needs are proportionately higher during the growth spurt; adolescent students have been reported to be suffering from protein-calorie malnutrition because of less

intake(2). The food intake of teenagers in the developed countries has been reported to vary and to be inadequate(3). The common causes of malnutrition among adolescents in the poor community are lack of food or less access to food and inadequate knowledge about dietary requirements(4). But what happens amongst the 'well to do' group. In India, adequate information on the dietary intake amongst adolescents belonging to 'well to do' group is not available. The present study was conducted to fill this gap in the knowledge.

### Material and Methods

The present study was conducted in a public school of Delhi, which catered to the urban elite. The tuition fee per child per month was Rs. 400/-. The school was selected by using purposive sampling keeping in view the operational feasibility. All the students studying in VII to XII standards were included for the detailed study. The girls having menstrual period on days of study were excluded. For each student, information on the following parameters was collected like—age, sex, family income, family size, height, weight and dietary habits. All the students were categorized in two main groups as per age—Group A, students aged 13-15 years and Group B between 16-18 years.

The dietary intake of each student was recorded by an experienced dietician using

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24 h recall method. Detailed information regarding size of chapatti, size of glass and katori being used was collected. Nutrient intake was calculated referring to the tables provided by the Indian Council of Medical Research(5). The height and weight of each subject was measured using standard accepted techniques(6). Nutritional status of each child was calculated with the help of Body Mass Index (BMI) as  $\text{wt}/\text{ht}^2$  (wt in kg and ht in meters).

## Results

All the students were unmarried and belonged to high socio-economic status with a mean per capita income of Rs 1242/- (range Rs 712-1583).

In Group A, in cases of boys the average daily intake was  $1847 \pm 373$  Kcal with an average intake of protein of 60 g, fat 73 g and carbohydrates 239 g (Table I). The intake of 1847 Kcal was low as against the RDA of 2400 Kcal for their age and sex. Only 2 boys consumed calories more than RDA whereas the rest of 41 boys took less than RDA. The deficit in total calorie intake was 23% and for protein 16%. In case of girls, the average

calorie intake was  $1500 \pm 480$  Kcal as against RDA of 2050 Kcal. The deficit in calorie intake was 27% (Table I).

In Group B, in case of boys, the average calorie intake was  $2015 \pm 671$  Kcal as against RDA of 2600 (deficit 22.5%) (Table II). The protein intake was 65 g per day (18% deficit). In case of girls the average calorie intake was  $1479 \pm 548$  Kcal per day against RDA of 2050 (Table II).

In both Groups A and B the protein intake was 13%, fat 35% and carbohydrate 50-60% of the total calorie intake.

## Discussion

Studies have documented that girls in India do not achieve their full height and weight potential on account of dietary insufficiency(7). It has been reported that in poor communities, the girls' diet was inferior both in quality and quantity to a boys' diet and that a high number of girls and women suffered from malnutrition as compared to men and boys in the same age group(8).

In our study, we found that the dietary intake was less in case of both boys and girls when compared with RDA. In case of girls

TABLE 1—Dietary Intake of Nutrients (mean  $\pm$ SD) per day in Group A (13-15 yrs)

Sex	Sample size	Protein (g)	Fat (g)	CHO (g)	Energy (Kcal)
M	43	$60 \pm 13$	$73 \pm 24$	$239 \pm 68$	$1857 \pm 373$
F	41	$47 \pm 13.5$	$63 \pm 29$	$188 \pm 61.5$	$1500 \pm 480$

Table II—Dietary Intake of Nutrients (mean  $\pm$ SD) per day in Group B (16-18 yrs)

Sex	Sample size	Protein (g)	Fat (g)	CHO (g)	Energy (Kcal)
M	25	$65 \pm 26$	$63 \pm 26$	$297 \pm 118$	$2015 \pm 671$
F	25	$49 \pm 20$	$59 \pm 31$	$187 \pm 55$	$1479 \pm 548$

the calorie intake was in deficit by 27% whereas in case of boys the deficit was 25%. Similarly, protein intake of girls was in deficit by 16-18%. An earlier study has reported a mean consumption of 1787 Kcals and 47.6 g of protein in adolescent girls which is similar to our findings(9).

In the present study, the major reasons for inadequate intake of calories was due to ignorance about the daily requirements of nutrients. The skipping of the meals amongst female adolescent girls, to maintain their body figure, was another important reason for low dietary intake. The findings of present study revealed that there is a need of imparting health and nutrition education to adolescent students.

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## Cotard's Syndrome in Parietal Lobe Tumor

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Cotard's syndrome was first described as *Delire de Negation* in 1981. The condition is delusion which, in its complete form, leads the patient to deny his own existence

and that of external world(1,2). Such delusions are most commonly seen in patients of endogenous depression but may also occur

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