## ADOLESCENT GROWTH SPURT





National Institute of Nutrition Indian Council of Medical Research Hyderabad - 500 007

## ADOLESCENT GROWTH SPURT

A d o l e s c e n t s constitute more than one-fifth of Indian's population. The word 'Adolescent' comes from Latin word 'Adolescere' meaning to 'grow, to mature' signifying the special f e a t u r e s o f adolescence. According to WHO, the following are some of the characteristic f e a t u r e s o f adolescence.

- Attainment of rapid physical growth and development.
- Physical, social and psychological maturity, but not all at the same time
- Development of adult mental growth and adult identity.
- Transition from total socioeconomic dependence to relative independence.

ADOLESCENCE CAN BE CATEGORIZED INTO THREE MAIN STAGES:

1. Early adolescence (9-13 years): Characterized by a

growth spurt and the development of secondary sexual characteristics.

- 2. Mid-adolescence (14-15 years): This stage is characterized by the development of a separate identity from parents, and new relationship with peer groups and the opposite sex. There is urge to explore new things too.
- 3. Late adolescence (16-19 years): During this stage, adolescents have fully developed physical characteristic (similar to adults) and form a distinct identity with well-formed opinions and ideas.

Recommended dietary allowances for adolescent age group

Age group	Energy Kcal/day	Protein g/day	Fat g/day	Calcium mg/day	Iron mg/day	Vitamin A µg/day (Beta carotene)
10-12 yrs Boys	2190	54	22	600	34	2400
10-12 yrs. Girls	1970	57	22	600	19	2400
13-15 yrs. Boys	2450	70	22	600	41	2400
13-15 yrs Girls	2060	65	22	600	28	2400
16-18 yrs. Boys	2640	78	22	500	50	2400
16-18 yrs. Girls	2060	63	22	500	30	2400

Source : Recommended Dietary Allowances for Indians, NIN, ICMR, Year: 1989

## GROWTH, DEVELOPMENT & NUTRITION

Adequate nutrition is critical for growth spurt during adolescence. Poor nutrition is often cited as one of the reasons for delay in the onset of puberty, especially among Indian adolescent girls. Growth spurt which signals the onset of puberty depends on the girl's attaining a critical weight of 30kgs and a critical body composition of 10% body fat.

There is an increased demand for energy, protein, minerals and vitamins during adolescence. Details of RDA for adolescents are given in the table. Nin and on David on MINI

Title of the project: Development of communication strategies to improve nutrition and health related knowledge of NSS volunteers.

Investigators: T. Vijayapushpam, D. Raghunatha Rao, Anil Kumar Dube, Grace Maria Antony, Amulya Rao and K. V. Rameshwar Sarma.