



## Nutrient needs are greater as kids move to adolescence

The transition from childhood to adolescence brings with it many challenges. Hormonal changes along with rapid growth place new demands on both calorie and nutrient needs. This period of transition from child to adult plays a big role in building the foundation for either health or health problems during the rest of one's life.

Nutrient needs are greater during the adolescent years than during any other time in life.

Reaching an individual's genetic potential for both physical and mental development is integrally related to adequate nutrition.

Prior to puberty, nutrient needs for girls are similar to boys. However, puberty substantially increases most nutrient needs, especially for girls. Not consuming an adequate diet can delay sexual maturation and compromise growth and mental/emotional development. Poor nutrition during these adolescent years also can increase the chances of adult diet-related chronic diseases that occur later in life. These conditions include cardiovascular disease, cancer and osteoporosis, to name a few.

**Question:** When are the nutrient needs greatest during adolescence?

**Answer:** Nutrient and calorie needs peak during the adolescent

growth spurt. The age of this peak growth varies from one teen to another but is generally earlier for girls than for boys. Nutrient and calorie requirements during the growth spurt can be as much as twice that of those growing more slowly.

**Q:** Do present-day adolescent eating habits meet nutrient and calorie needs?

**A:** Many teens may be running short on a number of essential nutrients. Consequently, this is an important stage of life to eat well and maximize both physical and mental performance.

During the past couple of decades, it appears that the types of food available and the eating styles of many teens have changed considerably. Researchers at the University of Hawaii are literally planning to get a "snapshot" of current teen eating habits. By having teenage girls take photos of the food they are eating, researchers will document the types of food being consumed and measure how much is typically eaten.

**Q:** How will the research be conducted?

**A:** Jinan Banna is the lead researcher on this study. To learn more about the eating habits of girls during the transition into their

teenage years, Banna is recruiting mothers and their daughters (9 to 13 years of age). Participants will be asked to attend two meetings with the research team. The girls will be asked to document everything they eat for three days.

At the first meeting, participants will receive an iPod with a mobile food record application that the teen can use for three days to take pictures of the food she eats. At the second meeting, height and weight will be measured, and surveys will be completed by both mother and daughter. For participating in the study, the teen will receive \$50 in gift cards to a major chain store (\$20 after the first meeting and \$30 after the second).

Those interested in learning more about participating in this research opportunity can email Dr. Jinan Banna at [jcbanna@hawaii.edu](mailto:jcbanna@hawaii.edu) or call 956-7857.

The results of this study will help identify nutrient shortcomings that may be common in the diets of teenage girls in Hawaii. The type of information that this study will provide can be readily translated into public health education messages to benefit the health of many teenage girls during this critical stage of life.

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