

ADOLESCENT NUTRITION

By

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WHY NUTRITION FOR ADOLESCENTS

During adolescence, there are;

- Significant increases in height and weight.
- Muscle and fat increase, (girls gain more fat, and boys gain more muscle)
- Increased requirement of energy (carbohydrates, healthy fats) and proteins increases considerably during this period.
- Increased physical activity engagements for some, so the more active the adolescent is in sports, farming, etc, the higher their energy and protein requirements.

NUTRITIONAL NEEDS FOR THE ADOLESCENT

- **IRON-** Iron needs are at their highest during adolescence (BOTH BOYS AND GIRLS) due to rapid growth with sharp increase in lean body mass, blood volume and red cell mass.
 - ✓ In boys, there is a sharp increase in the iron requirements. This reduces after the growth spurt and sexual maturation
 - ✓ In girls, mainly due to menstruation typically starts about one year after peak growth and some iron is lost during menstruation. Iron requirements in adolescence are greater if there are infectious diseases such as HIV, malaria and parasitic infections that can cause iron loss, and because of low bio-availability of iron from diets.
- **CALCIUM** – needed due to,
 - Increased muscular, skeletal and endocrine development; The mineral quantity in the bone must be optimal during puberty to prevent osteoporosis (risk of fracture/breaking bones in later life).

NUTRITIONAL NEEDS FOR THE ADOLESCENT cont.

- **ZINC** - important for,
 - Bone formation and prevents bone loss.
 - Physical growth and Sexual maturation (beard, breasts, voice change, etc.)
- **IODINE** important for,
 - Growth as well as the needs of the
 - Fetal growth during pregnancy. If inadequate may cause increased miscarriages, still births, birth abnormalities and mental retardation.
 - Earlier in life severe iodine deficiency in children results in learning disability and lowered achievement.
- **VITAMINS** Needed for,
 - utilization of energy, the B – vitamins help release energy from carbohydrates - Because of higher energy demands
 - growth and sexual maturation - Folic Acid and vitamin B-12
 - Prevention of birth defects - Folic Acid
 - Skeletal growth needs more vitamin D.
 - new cell growth needs Vitamins A and C

THE KENYAN NUTRITION CONTEXT FOR ADOLESCENTS

- Contexts and definitions for adolescents vary in
 - Policy – different delimitations of age for adolescent
 - Community – age is not used to define, social and cultural markers used instead – circumcision, marriage and parenthood
- A large number of adolescents between 14-19 years of age are in **boarding schools** and may not have control over the foods they are served
- Vulnerability to **peer pressure** and media, especially in relation to body image and marketing of food choices/sources.
 - Could result in consumption of excess salt, sugar and/or fats,
 - Risky health behaviors such as anorexia nervosa (refusal to eat for fear of gaining weight).
- Exposure to and engaging in habits such as **smoking, drugs and alcohol use**.
 - Could increase the risk of undernutrition, over nutrition and NCDs

THE KENYAN NUTRITION CONTEXT FOR ADOLESCENTS

- Varying household economic status –
- Household income generating activities – either engaged by parents, leaving adolescent with other household responsibilities engaged by the adolescent
- Social norms and restrictive food practices – define the foods adolescents eat or are allowed to eat
- Food knowledge
- Educational attainment
- Climate – impacts/determines access to food, especially in Arid and Semi arid areas
- Security – some modes of food access leads to rustling to access food
- Sexual reproductive health
- Service delivery issues

THE KENYAN NUTRITION CONTEXT FOR ADOLESCENTS

MERU	SAMBURU	NAIROBI SLUM
<ul style="list-style-type: none">• A bit of variety in diet – cow peas, pea nuts, potatoes• Girls prepare food when not in school• Desire foreign foods, new foods for fashion, satiety and energy – spaghetti, chapatti• Pregnant adolescent girl	<ul style="list-style-type: none">• Limited variety in their diets majorly livestock – but meat is also rare and mainly consumed during occasions• Gradual cultural shift - some now consuming eggs, beans• Food experiences – food is monotonous/boring• Pregnant adolescents/women expected to eat less so that fetus does not grow big• Circumcised boys eat meals prepared by their mothers or eat in front of women. Eat in company of a fellow boy• Boys expected to eat more and girls less yet girls engage in a lot of chores	<ul style="list-style-type: none">• Access to food is disorganized, uncertain, unregulated• Roadside purchase a lot more than home-made meals• Hygiene issues- barely washed especially for roadside food• Desire the food life of the wealthier neighborhood since they see the food culture from what they scavenge• Hustling leads to preference for ready –

NUTRITION DEFICIENCIES AMONG ADOLESCENTS IN KENYA

- Anaemia among school age children (5-14 years) is 16.5%, iron deficiency 9.4% and iron deficiency anemia is 5% Anemia among 15-19 year old adolescents is 13.8%, iron deficiency 15.6% and Iron Deficiency Anemia is 7.6%
- Zinc deficiency among school age children (5-14 years) is 80%
- 18% of adolescents get pregnant
- Folate and vitamin B12 deficiency is 31.5 and 47.7% respectively among non pregnant women 15-19 years
- Smaller studies indicate an increase in number of adolescent overweight and obese and an increase in diet related NCDs

(Data from the Kenya National Micronutrient Survey 2011)