

# Adolescents Malnutrition

Subjects: Nutrition & Dietetics

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Adolescents are young individuals that are between the ages of 10 and 19 years old.

Malnutrition refers to deficiencies, excesses or imbalances in an individual intake of energy and/or nutrients

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## 1. Introduction

Adolescents are young individuals that are between the ages of 10 and 19 years' old; this is a period of transition from childhood to adulthood and also a critical phase of physical growth and development <sup>[1]</sup>. Globally, there are about 1.2 billion adolescents; 90% of them reside in low and middle-income countries, and 125 million lives in areas affected by conflict <sup>[2] [3]</sup>. This stage is sensitive to malnutrition as a result of the increased physiological need for nutrition that can be affected by insufficiency, excess, or inequality in individual energy intake, which can affect them and their future generation <sup>[2] [4] [5]</sup>.

Adolescence, when growth spurts occur, may expose them to malnutrition <sup>[2] [6] [7] [8]</sup>. They gain 20% to 25% of their height and up to 50% of their ideal weight <sup>[9] [10]</sup>. To support this rapid growth, there is a need for increased demand of energy, protein, minerals and vitamins <sup>[11] [12]</sup>. Sufficient nutrient intake of both macro and micro-nutrients is essential at this stage to meet the increased demand due to speedy growth, sexual maturation and menstruation <sup>[13]</sup>. Under-nutrition may contribute to underweight, poor performance at school, poor general health, pregnancy and birth complications, and less economic productivity <sup>[14] [15]</sup>. Whereas over-nutrition may contribute to non-communicable diseases such as hypertension, coronary heart disease, stroke, diabetes, sleep apnea and cancer, among others <sup>[12] [16]</sup>. Globally under-nutrition deficiency is a risk factor contributing to the burden of disease among adolescents <sup>[17]</sup>. The prevalence of iron, iodine and vitamins deficiencies among younger adolescent girls is high in lower social development index countries <sup>[18]</sup>.

## 2. Malnutrition in Adolescent Girls

In Nigeria, the prevalence of child marriage before the age of 18 years is 39%, and 16% of adolescent girls are married off before the age of 15 years, resulting to motherhood in childhood. Early marriage exposes adolescent girls to pregnancy complications such cephalon–pelvic disproportion that tends to double the burden of malnutrition, placing the child at higher risk of mortality before their fifth birthday due to little or no information about malnutrition, diet, and nutritional status <sup>[19] [20] [21]</sup>. Though malnutrition itself is a problem found among both boys and girls, the adverse effect is more on the girl child. If an adolescent girl enters into the reproductive cycle in a malnourished state, she will grow up into a malnourished adult and give birth to a malnourished child, as shown in Figure 1 <sup>[22]</sup>, contributing to an unproductive community and the cycle of inter generational transfer of malnutrition. The key to breaking the cycle of inter generational transmission of malnutrition is to improve the nutrition of adolescent girls, in general, to ensure longer-term sustainable results in reducing malnutrition, poverty, and food insecurity <sup>[23] [24] [25]</sup>. Without adequate knowledge, attitude, and practice towards reducing malnutrition among adolescent girls and young women before, during and after pregnancy, it will be impossible to have a healthy community.

Studies conducted among adolescent girls in Maiduguri Metropolitan Council, Borno state reveals that (80.2%) of adolescent girls have poor knowledge, about (57.3%) had poor attitude and (49.5%) had poor practice towards reducing malnutrition. There is a need to focus on both school-based and community-based health education intervention to address the poor knowledge, attitude, and practice among adolescent girls for a healthier future <sup>[26]</sup>.

i will recommend more context-specific and relevant studies should be conducted in middle and low income countries since these settings bear more burden of malnutrition and early marriage globally. Most adolescent girls in low and middle income countries go into motherhood with little or no knowledge about malnutrition and its consequences; focusing

on adolescent girls is not only important for her but also for her children in the near future in preventing the cycle of inter-generational transmission of malnutrition [27]. Furthermore, there should be more intervention studies among these age groups which should be gender sensitive in some settings to help close the gap that exists within these age groups.

**Figure 1.** Nutrition throughout the life cycle showing the effect of malnutrition on the adolescent girl and her unborn child

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