

# The Transformative 10: Nutrition for Growth

The first 1000 days are fully recognized as setting the foundations of a child's lifelong health.

However, are you aware that the ultimate realization of an individual's potential requires a successful bridging from early childhood to adulthood which lies between 5 to 15 years of age: The Transformative 10 years?

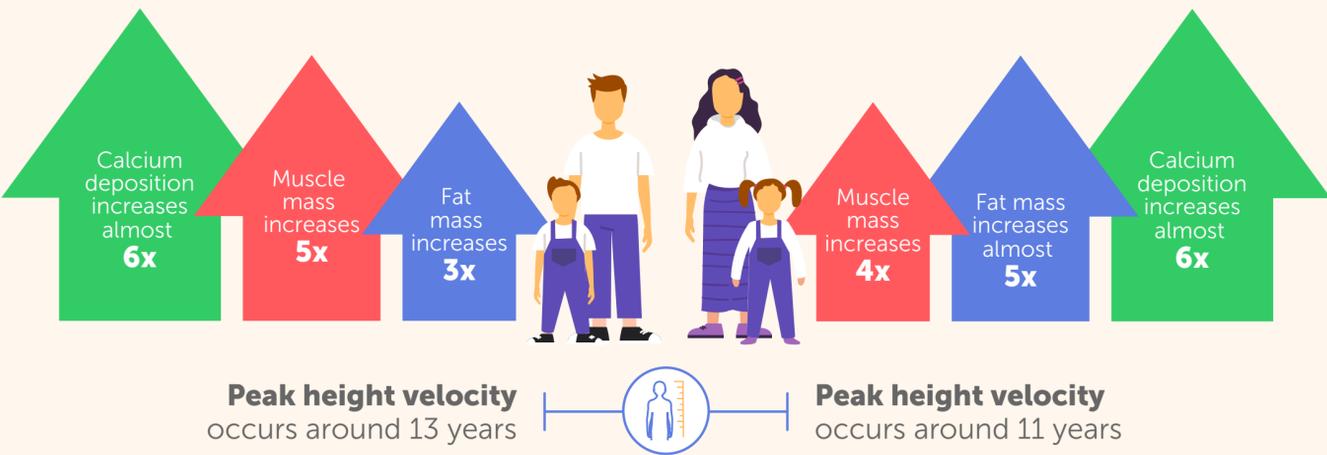
The body undergoes rapid and visible change during

## THE TRANSFORMATIVE 10

In boys...

From 5-15 years of age

In girls...



## DID YOU KNOW?

### NUTRITION HAS GREAT TRANSFORMATIVE POWER

During THE TRANSFORMATIVE 10, children have specific nutritional needs, every choice counts



Nutrients can be categorised according to their functional roles in growth and development



**Nutrient to support energy metabolism**

*Vitamins B, C, D, Calcium, Iron and Phosphorus*



**Nutrients to support growth spurt**

*Protein, Carbohydrates, Fats, Calcium and Vitamin D*



**Nutrients with specific functions**, where a deficiency can lead to specific symptoms

*Iron, vitamin A, calcium, iodine*



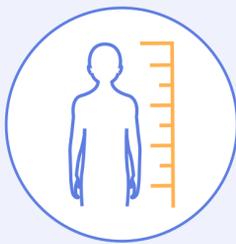
**Nutrients with multiple functions**, where it is more difficult to detect deficiency symptoms

*Zinc, magnesium, phosphorus, potassium, sodium*

In early adolescence, children enter a peak height growth phase.



During the pubertal height spurt, up to 45% of adult bone mass is attained.



The rate of bone mineralisation peaks at around the age of 12.5 years for girls (up to 320g/year) and age 14 years for boys (up to 400 g/year).



Children's bones first get longer before they gain bone density. This dissociation explains in part the higher frequency of fractures in early adolescence.

## KEY TAKE AWAYS



During early adolescence between 10-15y, children undergo a growth spurt, and their rate of height gain almost doubles.



During THE TRANSFORMATIVE 10 fat mass, muscle mass, and calcium deposition increase between 3 to 6 times in boys and girls.



Adequate intake of protein, calcium, vitamin D, and other nutrients with specific functions, as well as physical activity during THE TRANSFORMATIVE 10 are critical for growth and bone health.

**References**

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