



Suggestions for Increasing Height

Stunting is a condition in which the student has **LESSER height-for-age** (Kamal, Firdous and Alam, 2004). Treatments are available (Cuttler *et al.*, 2011), but the best course of action is through diet, exercise and lifestyle adjustment. To increase height (Fig. 1a), the student should consume food high in calcium and protein as well as fiber (bread, *etc.*), the last one, also, prevents constipation (Fig. 1b) and decrease consumption of salt and fat. Diet-based intervention shall be effective, only, if the student is **NOT** suffering from **vitamin-D deficiency** (Kamal, 2013a). **Tallness** means the student has **EXCESS height-for-age** (Kamal and Jamil, 2012). Taller students are **AT A GREATER RISK** of acquiring **scoliosis** (Kamal, 2012), if they **DO NOT** possess **OPTIMAL weight-for-height** (Kamal, 2013b). Students, short for age, should perform light-stretching exercises (dressed minimally) in a park just after sunrise (hanging from bar, mild stretching, summersault, cartwheel — *cf.* Fig.1c) as well as while watching TV. Such students should exercise for 5 minutes after each class (stretching, bending, touching toes as well as performing head-, neck-, eye- and wrist-exercises). In addition, they should increase their sleep duration to at least 9 hours. To achieve maximum from bedtime (sound sleep), the NGDS Team recommends the following pre-sleep routine: (a) perform light exercises, (b) massage with olive oil, (c) take bath with lukewarm water, (d) change into fire-resistant pajama-shorts, giving the body an opportunity to breathe — discourage sleeping in day clothes or underwear, (e) drink a glass of milk, (f) brush teeth, (g) get into bed on time in a room with subdued lights (artificial lights should not be present) — both parents should ask about good and bad things that happened during the day (to sort out any internal frustrations) followed by poem-reading or story-telling. If children sleep in air-conditioned room, they

should cover themselves with a thick sheet or blanket to avoid catching cold. According to *Journal of Holistic Nursing*, a 3-minute, slow-stroke back massage improved quality as well as quantity (by about 36 minutes) of night time sleep in patients suffering from dementia (Health Smart, 2013). Since 2011, growth-and-obesity monitoring of primary-school children has been, regularly, conducted in BLA (Kamal, 2011).

Cuttler, L., R. L. Rosenfield (2011). Assessing the value of treatments to increase height. *New England Journal of Medicine*, **364**: 1274-1276

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Kamal, S. A. (2013b, May 23). Guidelines for optimal-weight management. *The NGDS Pilot Project e-Publication*, full text:

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Kamal, S. A., S. Firdous and S. J. Alam (2004). An investigation of growth profiles of Pakistani children. *International Journal of Biology and Biotechnology*, **1**: 707-717, full text: www.ngds-ku.org/Papers/J26.pdf

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<http://www.ngds-ku.org/Papers/J30.pdf>

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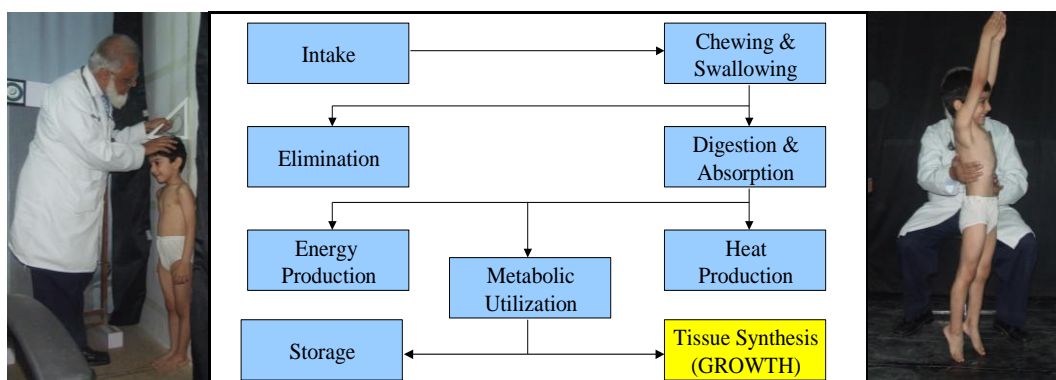


Fig. 1. Left to right, (a) measurement of height; (b) from intake to tissue synthesis: the journey of a chunk of bite* and (c) mid-stretching: exercise program to gain height

(a, c http://www.ngds-ku.org/BLA/Height/Fig_1.htm)