

# Nutrition for Kid's Growth and Health

Vitamin D levels in Malaysia are suboptimal across most age groups. The Nutrition Survey of Malaysian Children (SEANUTS Malaysia) was carried out to comprehensively assess the nutritional status of Malaysian children and unveiled some unexpected results – **almost half of the children are vitamin D deficient**<sup>1</sup>. Possible reasons for the deficiency could be low dietary intake of vitamin D, calcium and a lack of sun exposure among children living urban and sedentary lifestyles.

Vitamin D is frequently added into breakfast cereals or cow's milk, however, vitamin D3 in particular is not commonly added into these foods. Vitamin D3 is the type of D vitamins that most nutrition experts believe should be utilized in clinical practice<sup>4</sup>. Vitamin D3 or cholecalciferol is formed in the body, when the skin synthesizes sunlight on its surface. Staying indoors most of the time could cause a deficiency in this sunshine vitamin and a possible negative impact on bone growth.

Nutrition for early childhood should be a balance between dietary energy intake and regular physical activities. To maximize height growth, achieving healthy muscles and bone structure is necessary through adequate intakes of protein, calcium and vitamin D3.

## Protein for Height Growth, Muscles and Bones

Protein is made up of building blocks called amino acids. Complete protein provides all 22 different amino acids, but 9 essential amino acids must be consumed from the diet because the body is not able to synthesize them. Histidine, Leucine and Lysine are the three specific, essential amino acids which are required for the production of growth hormones in the body. **Compared to taking calcium supplements alone, a combination of calcium, protein and with other nutrients such as vitamin D3 and magnesium would produce higher bone density and structure for optimal growth**<sup>3</sup>.

In accordance to health claims allowed on food products by Ministry of Health (MOH) Malaysia,

- Protein is essential for growth and development,
- Calcium aids in the development of strong bones and teeth,
- Magnesium promotes calcium absorption and retention,
- Vitamin D helps the body utilize calcium and phosphorus.

## Grow Tall and Strong with Biogrow® DPF™!

**Biogrow® DPF™ High Vitamin D3 + Protein + Fiber Powder with cocoa flavour** is specially formulated to meet the nutritional needs and dietary requirement of growing children with the rich chocolatey taste they love. One scoop (≈ 25 g) of **Biogrow® DPF™** provides:

- ✓ **More than 27 % of plant protein** (from non-GMO soy and pea), with all nine essential amino acids.
- ✓ High in calcium, magnesium and vitamin D3 for bone health.
- ✓ **High in soluble fiber** dextrin for digestive health.

**Biogrow® DPF™** is the unique combination of plant protein and fiber with additional bone and digestive health benefits. It contains soluble fiber (wheat resistant dextrin) to promote regular bowel movement, especially for people with a tendency of constipation. Dextrose and malt extracts are added as source of instant energy for children and active individuals. In addition, **Biogrow® DPF™** is dairy-free, lactose-free and is suitable for all ages, including vegetarians and adults leading active lifestyles.

**Biogrow® DPF™ high in plant protein and fiber with bone and digestive health benefits.**



For more enquiries, please call 03-7956 2220 (Mon - Fri; 9 am - 5 pm) or email to [info@biogrow.com.my](mailto:info@biogrow.com.my). Like our official Facebook page at [www.fb.biogrow.com.my](http://www.fb.biogrow.com.my).

#### References:

- 1 Pohn et al., Br Jr Nutr, 2013
- 2 Khor et al., 2011. High prevalence of vitamin D insufficiency and its association with BMI-for-age among primary school children in Kuala Lumpur, Malaysia, 11, 95.
- 3 Lister et al., 2007. Current topics in nutraceutical research, 5, 67-82.
- 4 Mark A. Moyad, MD, MPH. Vitamin D: A Rapid Review. Dermatology Nursing, 2008;21(1).

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