



Malaysia



Average

- Male **164.7cm**
- Female **153.3cm**



Singapore

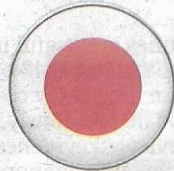


Average

- Male **170.6cm**
- Female **160cm**



Japan



Average

- Male **171.2cm**
- Female **158.8cm**



South Korea



Average

- Male **175.3cm**
- Female **162.6cm**

Shorter than the rest

Undernutrition among our adolescents is causing them to be stunted, making them shorter on average than some of our regional neighbours.

By **REVATHI MURUGAPPAN**
starhealth@thestar.com.my

MALAYSIAN teenagers are a short lot – and not because of genetical predisposition.

One in six local teens are considered stunted at 6-7cm shorter than the World Health Organization's (WHO's) standard height reference for adolescents between 10 and 17 years old.

This is as they are not consuming adequate amounts of the nutrients needed for growth.

Given that the window for the adolescent growth spurt is very short, yet provides the biggest growth opportunity during our lifetime, this problem of undernutrition needs to be addressed so that our teens can attain their maximum potential height.

Stunted growth and development caused by undernutrition is common in many regions, especially poorer ones.

Data from our 2019 National Health and Morbidity Survey (NHMS) showed that one in five Malaysian children aged five and under are stunted.

This reflects an increasing trend, with 21.8% in 2019 from 17.7% in 2015 and 16.6% in 2011.

Meanwhile, data from the 2017 NHMS revealed that the adolescent stunting rate was at 8.5%, or one in 12, in the 10- to 17-years-old age group.

Increased risk of disease

"This is a high percentage for an upper middle income country like ours.

"For developed countries, we want to keep this figure below 5%," comments Universiti Malaya Faculty of Medicine Department of Paediatrics head Professor Dr Muhammad Yazid Jalaludin.

The average final adult height of Malaysians is 164.7cm for men and 153.3cm for women.

"If we plot this on the growth chart, we are in the bottom 10th percentile, which means our average height is at the lowest out of 100 countries for both men and women, i.e. we are 8-9cm shorter than the rest.

"The fact that we are not achieving as much height as other Asian men and women is worrying.

"We have fallen behind Singapore, Japan and South Korea, although in the 1940s and 1950s, we were around the same height," he says.

The average male height is 170.6cm in Singapore, 171.2cm in Japan and 175.3cm in South Korea. For females, it is 160cm in Singapore, 158.8cm in Japan and 162.6cm in South Korea.

Interestingly, females in South Korea have recorded one of the biggest height increases among the world's female population over the last century.

Prof Yazid adds: "Of course, we also have to look at the parents' height – teens should be plus or minus 8cm from their dad's or mum's height."

Studies have shown that countries that consume more dairy products and animal proteins have a taller population, compared to countries that rely on rice and wheat, like most Asian countries.

Some consequences of stunting include poor cognition, poor educational performance at school, lower income and lower economic opportunity.

And when stunting is accompanied by excessive weight gain later in childhood, the person will develop an increased risk of nutrition-related chronic diseases in adulthood, including obesity, diabetes and heart diseases.

"A number of them become obese, as when they start to grow older, they get better nutrition and cannot satisfy their hunger, so they eat a lot," he says.

However, stunting recovery intervention may enable undernourished children to catch up on height and other developmental markers.

The crucial years

Puberty is the time in life when a boy or girl becomes sexually mature.

This is also when the growth spurt occurs.

This short period of rapid growth development in children typically lasts around two to three years.

Prof Yazid explains: "Boys and girls start at different ages.

"In girls, puberty is when the breasts develop, which can be as early as eight years old, until menarche, i.e. their first period, which is around two or three years after breast development."

He adds that the growth spurt usually occurs at the early stage of puberty, so for girls, it occurs around the time of breast development.

"Once they get their menses, they don't grow much until the end of the total pubertal period – the gain is only around 2-5cm.

"During the first two to three years of puberty, most will gain between 17-22cm in height," he says.

For boys, puberty begins later, with testicular enlargement that can begin as early as nine to 10 years of age, although it typically occurs around 12 years of age.

It then takes another two to three years before puberty ends.

"Only after puberty will boys have a growth spurt and can achieve a 20-25cm height gain.

"This is when they start having acne, pubic hair, etc.