

Growth - assessing primary school children

The easiest way to measure a primary school child's growth is by plotting their weight and height over a period of time on growth reference charts. Healthy children will generally have healthy growth and development patterns.

Many things influence growth including genes, nutrition, good health and sickness. Children do not usually grow in a constant way. They usually grow in 'bursts'. A change in height and weight can occur in a short amount of time. Children's growth during the primary years is slow and steady.

How children's growth is measured

Doctors, nurses and other health professionals use a variety of ways to assess growth in primary school children. The most common ways include:

- **Growth charts** – standard growth references or growth charts are used to help interpret the child's height and weight measurements.
- **Body Mass Index (BMI)** – a calculation of BMI and use of age-specific BMI charts gives an indication of weight-for-height ratio.

Growth charts in Australia

Growth charts are used to measure children's growth. Measurements are taken from studies of the population as a whole and reflect the normal range of height and weight for children within a particular group (for example, all children born in a particular year).

The charts are divided into sections, called 'centiles', which show the proportion of the group that is above or below a particular measurement. For example, a child who is on the 85th centile for height is taller than 85 per cent of other children in Australia (of the same age and gender) but shorter than 15 per cent of other children.

In Victoria, the Centre for Disease Control growth charts from the United States are most commonly used to assess and monitor the growth of children. The World Health Organisation growth charts may also be used in some settings.

BMI centile charts for children

The BMI, is the most common way to assess whether a person is underweight, healthy weight or overweight. The BMI is a number that interprets a person's weight in relation to their height. It is calculated by dividing a person's weight in kilograms by their height in metres squared.

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height (m)}^2}$$

As children grow, their amount of body fat changes and so will their BMI. For example, BMI usually drops during the preschool years and then increases through the school years into adulthood. So a BMI calculation for a child (or for an adolescent) must be looked at together with age and gender centile charts.

BMI centile charts are used for children over the age of two. The charts use centile cut-offs as a guide only. BMI above the 85th centile and below the 95th centile indicates a child is overweight. The 95th centile and above indicates obesity.

Weight problems in childhood can cause problems

Being underweight or overweight can cause problems both now and when your child is an adult. For example:

- Severely restricting food or dieting before puberty can stunt a child's growth.
- Overweight children may be teased in the schoolyard, which may make them self-conscious and affect their attitude to school.
- Overweight children are less likely to take part in physical activity, which can make it even harder for them to manage their weight.
- Childhood obesity can increase the risk of a child developing a range of illnesses in later life such as diabetes and heart disease.

Some primary school children believe they are either too fat or too thin (skinny), even if they are within the healthy weight range for their height and age. At this stage, primary school aged children become aware of how they look compared with other children, and have begun to notice the media messages surrounding body image.

How parents react to their child's body image issues is very important. Parents and carers are the main role models for children (of all ages), despite the powerful influences of peers and the media.

Try to be a good role model and establish healthy eating habits for yourself and the whole family. Don't 'crash diet' or skip meals yourself and talk to your children about the importance of healthy eating habits for everyone. Try to involve your children in physical activities they enjoy – perhaps do things together as a family, like walking or bike riding. This is the perfect time for your child to learn about the importance of healthy food and activity.

See your doctor if you are worried

Always see your doctor if you are concerned about your child's growth. Your doctor can use a range of charts to help assess whether or not your child's growth is of concern.

Where to get help

- Your doctor
- An Accredited Practising Dietitian, contact the Dietitians Association of Australia
- Nurse-on-call Tel. 1300 60 60 24 (24 hours, 7 days)
- Primary School Nursing Program, Office for Children and Early Childhood Development Tel. (03) 9096 8653
- The Royal Children's Hospital Tel. (03) 9345 5522

Things to remember

- Parents and carers are the main role models for children (of all ages), despite the powerful influences of peers and the media.
- Primary school children pick up the media messages surrounding body image and are thinking about how they look.
- Being underweight or overweight can cause health problems in the long term.

This page has been produced in consultation with, and approved by:

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