

# The 10 top things about growth charts



1. In 2012, all Australian jurisdictions agreed to adopt the World Health Organization (WHO) growth charts for Australian children aged 0 – 2 years. The WHO growth charts for this age group are already in use in the Northern Territory and Victoria. They will be phased in by other states and territories over time.
2. WHO charts are recommended for all infants 0 – 2 years; whether breastfed or formula fed, and for all ethnic groups.
3. In Australia, the National Health and Medical Research Council Australian Dietary Guidelines (2013) suggest the use of the US Centers for Disease Control (CDC) weight, height and BMI charts for monitoring growth in children and adolescents aged 2 – 18 years.
4. Measuring children's growth and plotting on growth charts is quick and easy. Growth charts are not a diagnostic tool, but rather contribute to forming an overall clinical impression of the child being measured.
5. Growth assessment provides valuable information about the general health and wellbeing of a child. Growth assessment involves multiple measurements over time of weight, length or height; and in infants their head circumference; followed by accurate plotting on a growth chart and interpretation of the growth curves.
6. Regardless of which charts are used, serial measurements of the child's weight and length / height and accurately plotted on a growth chart over time, are needed to assess growth.
7. Healthy growth is considered when the child's weight and length / height generally 'track' along percentile lines; weight and length / height are mostly in proportion. Poor growth is characterised by weight or length dropping on percentiles. In over 2 year olds, BMI over 85<sup>th</sup> percentile describes overweight; over the 95<sup>th</sup> percentile obesity.
8. Health professionals need a broad understanding of the way different growth charts were constructed. For example, WHO infant charts are based on the growth of healthy breastfed infants from 6 countries living in optimal health and environmental conditions; CDC charts are based on a snapshot of children's weights and heights in the US.
9. The WHO charts show optimal growth rather than average growth and are based on breastfeeding as the norm. The growth patterns of breastfed and formula-fed infants are different. For example, healthy breastfed infants typically put on weight more slowly than formula-fed infants in the first year of life.
10. When a child reaches 24 months, start plotting on the CDC growth charts. At the transition from WHO to CDC charts, the position of a child's growth on the chart may shift a little. The WHO 0 – 2 charts are based on recumbent (lying down) length which is around 1-2 cm more than height (stature). The CDC 2 – 18 year charts are based on height (stature). Position on the weight percentile chart may also change a little.

Growth charts to download and training resources are available at [www.rch.org.au/childgrowth](http://www.rch.org.au/childgrowth)  
Electronic plotting tools showing growth over time are starting to become available in health service settings.