



## Growth Charts for Children with Down Syndrome

### Why do we need special growth charts for children with Down Syndrome?

- Most individuals with Down Syndrome typically have a shorter stature. They may also be at increased risk of some medical conditions that may adversely affect their growth.
- Growth charts can assist healthcare providers and family monitor the growth of a child with Down Syndrome and assess how they are growing when compared to their peers with Down Syndrome.
- Clinical growth charts include:
  - Weight in Kilograms
  - Length / Height<sup>1</sup> in centimetres
  - Head circumference
  - Weight for length (for 0-36 months only)
- Clinical Growth Charts are available for both boys and girls from birth to 3 years (36 months).
- Each chart generally shows the 5th, 10th, 25th, 50th, 75th, 90th, and 95th percentiles. A percentile shows you what percentage of the reference population that **would be equal to or exceed that of your child.** (See 'Reading and interpreting growth charts' on page 2)



Visit the links below for  
growth chart information  
(based on a US Reference Group)



#### Boys (0-3 years)

- ✦ Weight in Kilograms
- ✦ Length / Height<sup>2</sup> in centimetres
- ✦ Head circumference
- ✦ Weight for length (for 0-36 months only)

#### Girls (0- 3 years)

- ✦ Weight in Kilograms
- ✦ Length / Height<sup>3</sup> in centimetres
- ✦ Head circumference
- ✦ Weight for length (for 0-36 months only)

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1, 2, 3 Height measure only if child is unable to stand unsupported.

## Reading and interpreting growth charts

- Two most used terms in growth charts are “Percentile” and “Z score”.
- A percentile is an indicator used to assess growth patterns in Australia, U.K. and U.S. Percentiles are helpful to rank your child with DS against the reference group. A reference group is the group individuals with DS that were used to develop the growth charts. It shows you what percentage of the reference population would be equal to or exceed that of your child.
- A Z score is a measure of how your child relates to the average value for the reference group/ population.
- For example, on the weight charts, a **5-year-old girl whose weight is at the 25th percentile, weighs the same or more than 25 percent of the reference population of 5-year-old girls, and weighs less than 75 percent of the 5-year-old girls in the reference population.**

## Limitations of growth charts

- Growth charts provide useful reference points for children with Down Syndrome BUT may have some limitations with respect to the reference groups. **They should thus only be used as guides.**
- It is **highly recommended** that you seek the help of a health professional when interpreting your child’s growth with available charts.
- The reference groups that the charts are based on are usually measurements taken from a fixed group of individuals with Down Syndrome from specific locations. These children **may not** always be representative of ALL children with DS.

## Other age groups

- Growth Charts (US Reference Group) are also available for ages 2- 20 years. These can be found [here](#). 🌟🌟

## Other reference groups

Growth charts developed using a UK reference group can be found also [here](#). 🌟🌟 They may be slightly different to those developed using a US Reference Group. Again, both sources of charts are just a guide only.

References: <https://www.dsmig.org.uk/information-resources/growth-charts/>  
<https://www.cdc.gov/ncbddd/birthdefects/downsyndrome/growth-charts.html>



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## Disclaimer

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