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NEW: CDC Extended BMI-for-age growth charts for very high BMIs

Released December 15, 2022, these charts extend to a BMI of 60

[CDC Extended BMI-for-age growth charts page](#)

WHO Growth Standards Are Recommended for Use in the U.S. for Infants and Children 0 to 2 Years of Age

The World Health Organization (WHO) released a new international growth standard statistical distribution in 2006, which describes the growth of children ages 0 to 59 months living in environments believed to support what WHO researchers view as optimal growth of children in six countries throughout the world, including the U.S. The distribution shows how infants and young children grow under these conditions, rather than how they grow in environments that may not support optimal growth.

Recommendation

CDC recommends that health care providers:

- Use the [WHO growth charts](#) to monitor growth for infants and children ages 0 to 2 years of age in the U.S.
- Use the [CDC growth charts](#) to monitor growth for children age 2 years and older in the U.S.





Why use WHO growth standards for infants and children ages 0 to 2 years of age in the U.S.?

- **The WHO standards establish growth of the breastfed infant as the norm for growth.** Breastfeeding is the recommended standard for infant feeding. The WHO charts reflect growth patterns among children who were predominantly breastfed for at least 4 months and still breastfeeding at 12 months.
- **The WHO standards provide a better description of physiological growth in infancy.** Clinicians often use the CDC growth charts as standards on how young children should grow. However the CDC growth charts are references; they identify how typical children in the US did grow during a specific time period. Typical growth patterns may not be ideal growth patterns. The WHO growth charts are standards; they identify how children should grow when provided optimal conditions.
- **The WHO standards are based on a high-quality study designed explicitly for creating growth charts.** The WHO standards were constructed using longitudinal length and weight data measured at frequent intervals. For the CDC growth charts, weight data were not available between birth and 3 months of age and the sample sizes were small for sex and age groups during the first 6 months of age.

Why use CDC growth charts for children 2 years and older in the U.S.?

- The CDC growth charts can be used continuously from ages 2-19. In contrast the WHO growth charts only provide information on children up to 5 years of age.
- For children 2-5 years, the methods used to create the CDC growth charts and the WHO growth charts are similar.

The WHO Growth Charts

- Birth to 24 months: Boys Weight-for-length percentiles and Head circumference-for-age percentiles  [PDF – 543 KB]
- Birth to 24 months: Boys Length-for-age percentiles and Weight-for-age percentiles  [PDF – 723K]
- Birth to 24 months: Girls Weight-for-length percentiles and Head circumference-for-age percentiles  [PDF – 400 KB]
- Birth to 24 months: Girls Length-for-age percentiles and Weight-for-age percentiles  [PDF – 680 KB]


Data Tables

- [Data Table for Boys Weight-for-Length and Head Circumference-for-age Charts](#)
- [Data Table for Boys Length-for-age and Weight-for-age Charts](#)
- [Data Table for Girls Weight-for-length and Head Circumference-for-age Charts](#)
- [Data Table for Girls Length-for-age and Weight-for-age Charts](#)

Online Training

- [Using the WHO Growth Charts to Assess Growth in the United States Among Children Ages Birth to 2 Years](#)
This online training course was developed by the Centers for Disease Control and Prevention to train health care providers and others who measure and assess child growth on how to use the World Health Organization (WHO) growth standards to assess growth among infants and children ages birth to 2 years.

Related information

- [WHO Child Growth Standards](#) 
This web site presents the WHO Child Growth Standards. These standards were developed using data collected in the WHO Multicentre Growth Reference Study.
- [MMWR: Use of the WHO and CDC Growth Charts for Children Aged 0-59 Months in the US](#)

Last Reviewed: September 9, 2010