

GROWTH CHARTS

Doctors use growth charts and body mass index charts to compare a child's measurements with those of other children in the same age group. By doing this, doctors can track a child's growth over time and monitor how a child is growing in relation to other children. The growth charts your doctor uses for this purpose are a standard part of any checkup.

There are different charts for boys and girls because their growth rates and patterns differ. For both boys and girls there are two sets of charts: one for infants ages 0 to 36 months and another for children ages 2 to 20 years old. The charts show the range of heights and weights at a certain age of thousands of children from across the country.

Looking at the Charts

The new charts represent the most recently published standards for U.S. children, which were created in 2001. By plotting your child's measurements on these charts, doctors are able to compare your child's growth patterns with data collected on thousands of U.S. children.

Remember that only those measurements that are obtained in your child's doctor's office or taken by another properly skilled person should be plotted. Home measurements are frequently inaccurate and can lead to faulty data.

At the Doctor's Office

During an infant's regular checkups, the doctor typically takes certain measurements and writes them down in the baby's medical record. While your infant is lying on the table, it's likely that the doctor will measure the baby's length, weight, and head circumference, which is the distance around an infant's head at the widest point.

With an older child, a doctor usually plots four numbers on the growth charts: height for age, weight for age, weight for height, and body mass index (BMI). Although weight for height charts can be useful for measuring the body fat level in children 2 years and older, the Centers for Disease Control and Prevention has stressed that body mass index charts are the best indicator of a child's body fat.

BMI can give you an idea of how much body fat your child has, but it's not perfect. For example, it's normal to gain weight quickly - and to see your child's BMI go up - during puberty. A doctor can help you figure out whether this weight gain is a normal part of development or whether it is something to be concerned about. If you think your child is gaining weight too fast or believe

your child is becoming overweight, talk to your child's doctor or the school nurse. A child can also have a high BMI because he or she has a large frame or a lot of muscle instead of excess fat. And a small person with a small frame may have a normal BMI, but might have too much body fat.

What the Percentiles Mean

When you look at the standard growth charts, you will see seven curves that follow the same pattern. Each curve represents a different percentile: 5th, 10th, 25th, 50th, 75th, 90th, and 95th. The 50th percentile line represents the average for a particular age group. Your child's measurements will be plotted on the charts, so that the doctor can see how your child's measurements compare to the average for his or her age group. This helps the doctor determine whether your child is growing as expected.

To better understand how to interpret those readings, consider these examples. If the measurement for an infant's head circumference is in the 90th percentile, that means that the child's head measurement is greater than about 90% of children that age in the country. Only 10% of infants that age have head measurements that exceed those of your child.

If a 4-year-old's weight at a checkup is at the 20th percentile, that means about 80% of children that age weigh more than that child, and 20% of kids in the United States weigh less than that child.

Just because a reading is high or low on the chart doesn't necessarily mean that there's a problem. A baby whose head circumference is in the 90th percentile might also fall in the 90th percentile for weight and length - which would mean that the infant is just a normal kid who's large overall. By the same token, the child whose weight is at the 20th percentile may have parents who are a bit smaller than average for height and weight. For that child, being in the 20th percentile is an entirely normal reading, as long as he or she is growing fairly steadily along that percentile curve over time.

Sometimes, however, a child's measurement increases or falls to a higher or lower percentile curve or is at one extreme of the growth chart. For example, a child who falls below the 5th percentile on the weight for height would be considered underweight and a child who is at or above the 85th percentile would be considered at risk for becoming overweight; those at or above the 95th percentile are considered to be overweight.

Your child's doctor will be able to explain what the BMI and growth charts mean about your child's development.

What Can the Charts Tell Me About My Child's Growth?

Although growth charts are valuable tools, both doctors and parents must be careful not to focus too much on any one reading. Instead, the numbers should be viewed as a trend. Any measurement, taken out of context from the others, might give you the wrong impression of your child's growth.

When growth chart readings are examined over time, they reveal a pattern of growth. That pattern lets you know how your child is growing in relation to other children his or her age and also shows you how he or she has progressed from previous measurements. This information is a much more useful indicator of whether a child is growing normally than any single measurement.

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