

# Short Stature (Below Normal Height)

You may be concerned if your child is shorter than others of his or her age. Most likely, your child is genetically short or is growing at a slower rate than “normal.” Less often, short stature results from poor health or nutrition or from certain uncommon diseases.

- Children with certain genetic conditions may have other abnormalities in appearance or on physical examination.
- Malnourished children will appear very thin.

## What puts your child at risk of short stature?

- Genetics: Short parents often have short children.

## What is short stature?

Short stature simply means that your child is below “normal” height for his or her age. He or she may be shorter than his or her classmates. This may lead to teasing or problems with self-esteem. Your child’s actual height in inches is not as important as whether he or she is gaining in height and weight at a normal rate.

## What causes short stature?

- *Familial short stature.* Some children are simply shorter than others because it’s “in the genes”—if the parents are short, the child is likely to be short as well.
- *Constitutional growth delay.* Some children start out growing more slowly than others but don’t seem to have any disease or other abnormality responsible for slow growth. Most of these “late bloomers” eventually catch up in height to other children their age.
- *Hormone deficiencies or abnormalities.* Less commonly, short stature results from problems with *growth hormone* and other hormones such as *thyroid hormone* produced by the pituitary gland.
- *Chronic diseases or illnesses.* This refers to a disease or health problems that are present for a long period of time, such as cystic fibrosis or sickle cell disease.
- *Certain genetic (inherited) diseases or conditions.*
- *Malnutrition.* This refers to not getting enough food and calories over a long period of time. There are many causes of this, including neglect, chronic disease, or poverty. A child’s weight is affected first, then height.

## What does it look like?

The appearance of a child with short stature depends on the cause.

- If your child has familial short stature or growth delay, he or she will otherwise be normal.

## How is the cause of short stature diagnosed?

- If your child is growing slowly but otherwise appears healthy, no further tests may be needed. If the parents or other family members are short or were “late bloomers,” the same may be true for your child.
- If your child has stopped growing normally, further tests may be recommended to see if the cause is a disease or other abnormality. These may include:
  - X-rays (radiographs).
  - Blood tests to measure levels of growth hormone and other hormones produced by the pituitary gland.
  - Genetic testing for causes of an underactive pituitary gland.
  - Tests to diagnose other diseases that can cause slow growth, if needed.

## How is short stature treated?

Treatment for short stature depends on the cause:

- If your child seems to have constitutional growth delay, his or her growth will be checked over time. If your child’s growth “catches up,” then no treatment is needed. If not, tests for other possible causes of slow growth may be performed.
- For hormone problems such as *growth hormone deficiency* or *low thyroid*, treatment can be given to replenish the low levels. This usually requires seeing an endocrinologist (a specialist in treating hormonal diseases) for further tests and treatment.
- If other diseases are present, your child’s growth may improve after those diseases are treated. Growth hormone treatment may help in some children.

- Some children without any hormone deficiencies or health problems are simply very short. Growth hormone therapy may increase their adult height but there may be side effects and risks. If you are very concerned about how tall your child will be, we can refer you to an endocrinologist.



### **When should I call your office?**

Call our office if:

- Your child is growing slowly or stops growing normally.