

Growth Hormone Deficiency in Children

One of the causes of growth failure is Growth Hormone Deficiency. Growth hormone is secreted by the pituitary and is one of a number of hormones affecting a child's growth. Sometimes there is a deficiency of other pituitary hormones resulting in Hypopituitarism.

A growth hormone deficient child usually shows a growth pattern of less than 2 inches a year. In many cases the child will grow normally until the age of 2 or 3 and then begin to show signs of delayed growth. Other children will experience growth failure earlier or later than this age range. Though much smaller, these children have normal body proportions and often tend to look younger than their peers. Some may appear to be on the higher percentile in weight, though cases of Growth Hormone Deficiency have been diagnosed for children of low weight.

When a parent suspects growth failure of their child, they are often not immediately tested for Growth Hormone Deficiency. Previous growth measurements, when available, should be evaluated, a bone age (x-ray of a child's hand and wrist) taken and blood samples assessed for possible thyroid hormone deficiency.

Testing for Growth Hormone Deficiency will occur when other possibilities of short stature have been ruled out. A child's growth hormone secretion will be stimulated by one of several agents such as clonidine and Ldopa. The release of growth hormone may also be measured over a period of 8-12 hours, since growth hormone secretion varies throughout the day and is greatest after falling asleep.

Once diagnosed with Growth Hormone Deficiency, treatment is with human growth hormone, now available in unlimited quantities. Though every child may not react similarly to growth hormone treatment, the majority of children under therapy today reach a normal adult height or nearly their full growth potential. Growth hormone therapy is given by injection, either daily or several times per week. Parents are trained to give these injections and children, once they are comfortable with it, continue on their own.

Early diagnosis is extremely important for a growth hormone deficient child. To obtain the best results, a child must be diagnosed and treated at a relatively young age. Accurate annual measurements and plotting of a child's growth chart allows for identification of growth failure and treatment before the child's bones fuse. Once fusing has taken place, no additional growth is possible.

Short stature can be difficult for a child and their family. Many children much shorter than their peers experience both physical and emotional problems. Communicate with your child, offer assistance when necessary, but remember, act towards your child according to their age, not according to their size.

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