

The BSPED is one of the affiliated speciality groups of the Royal College of Paediatrics and Child Health. The society aims to improve the care of children and young people with endocrine disorders or diabetes mellitus, by bringing together professionals from a range of disciplines.

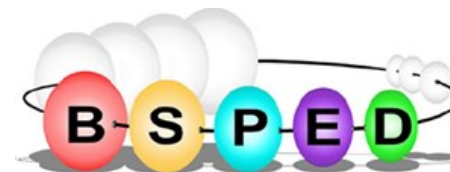
Please contact your local nurse or hospital doctor if you need more advice about your child's condition.

Produced by members of the BSPED and reviewed by the BSPED Clinical Committee.

Date of first issue: 23/02/2022
Review date: 23/02/2025

For more information, contact:

BSPED Office
Bioscientifica
Starling House
1600 Bristol Parkway North
Bristol
BS34 8YU
T: + 44 (0) 1454 642258
E: bsped@endocrinology.org



**British Society for
Paediatric Endocrinology
and Diabetes**

Pros and Cons of Growth Hormone Treatment in Children

Print version (print on both sides)

Information for patients, parents and carers



What is a hormone?

Hormones are chemical messengers. They are made in glands and travel around the body in the bloodstream. Hormones affect how other organs and systems in the body work.

What is a growth hormone?

Growth hormone, also called somatropin, is produced in the pituitary gland just below the brain. In children this chemical messenger tells the bones in the spine and legs to grow, increasing height over time.

How is growth hormone treatment given?

Growth hormone is given as a daily injection into the skin. The best time to give growth hormone is in the evening, to replicate the higher growth hormone levels normally produced during sleep.

What are the cons of growth hormone treatment?

- Daily injection with no current needle-free option
- Treatment is long-term until a child has reached their final height, or in some cases will be lifelong
- Does not work for everyone – children on growth hormone are regularly monitored to see if they are responding to treatment. If there is no effect after a year treatment may be discontinued
- Annual blood tests are required as part of monitoring
- Like all drugs there are some side effects, although these are very rare. A child's specialist team should be informed if they experience:
 - Headaches
 - Hip/groin/knee pain or limping
 - Snoring/pauses in sleep
- Some children may experience localised skin reactions or joint pain
- May contribute to increased spine curvature in patients with scoliosis

Resources

www.childgrowthfoundation.org
www.magicfoundation.org
www.yourhormones.info

Which conditions might require growth hormone treatment in childhood?

- ◇ Growth hormone deficiency
- ◇ Turner syndrome
- ◇ Children born small for gestational age with a height that has not caught up by 4 years of age
- ◇ Prader-Willi syndrome
- ◇ Chronic renal insufficiency
- ◇ SHOX deficiency
- ◇ Noonan Syndrome

What are the pros of growth hormone treatment?

- Helps a child achieve their full height potential
- Improves lean muscle mass
- Regulates metabolism in children with growth hormone deficiency
- Reduces excess fat under skin and around abdominal organs
- Simple method of administration
- Minimal discomfort
- No evidence of growth hormone increasing risk of new cancers