



HHT[®] PEN

Somatropin

I can do it by myself!

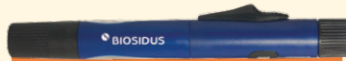


Somatropin auto-injector pen



Supporting
children as they
grow up!

This material is exclusive to HCPs; do not distribute to the general public.



HHT® Pen

HHT® Pen contains **somatropin**, a human growth hormone produced with **recombinant DNA technology**^{1,2}, which is identical in structure and function to the natural human growth hormone.¹

Physiological Effects of Growth Hormone



Growth hormone has a large number of physiological effects, both directly through its receptor and indirectly by interaction with other hormones.³

The two main effects involve bone and muscle growth, and effects on the metabolism of carbohydrates, proteins, and lipids.³

HHT Pen® is indicated for:

Children

Long-term treatment in pediatric patients with:

- Growth retardation due to growth hormone deficiency^{1,2}
- Growth retardation due to renal impairment^{1,2}
- Prader-Willi syndrome^{1,2}
- Turner syndrome^{1,2}
- Noonan syndrome¹
- IUGR/born small for gestational age with growth retardation, who fail to manifest catch-up growth by two years of age.^{1,2}

Adults

- Replacement therapy in adults with growth hormone deficiency^{1,2}
- Adult patients with AIDS wasting syndrome or cachexia.^{1,2}

EARLY DIAGNOSIS AND INITIATION OF GROWTH HORMONE THERAPY ARE ESSENTIAL TO OPTIMIZE TREATMENT EFFECTS.⁴

Benefits of Treatment with HHT®

CLINICAL STUDY RESULTS HAVE SHOWN THAT TREATMENT WITH HHT® IS **SAFE AND EFFECTIVE**.¹

Children with growth hormone deficiency

- Treatment with HHT® **significantly increased baseline growth rate** in children with growth hormone deficiency.¹
- A sustained improvement was evidenced by the approximation to genetic target height, with a mean recovery of 2 standard deviations over two years of treatment (Figure 1).¹

Figure 1

Effect of treatment with HHT® on the height of children with growth hormone deficiency, in terms of distance in standards deviations related to Genetic Target Height¹

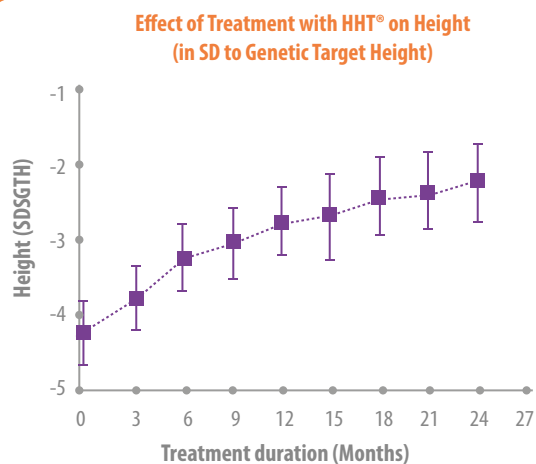
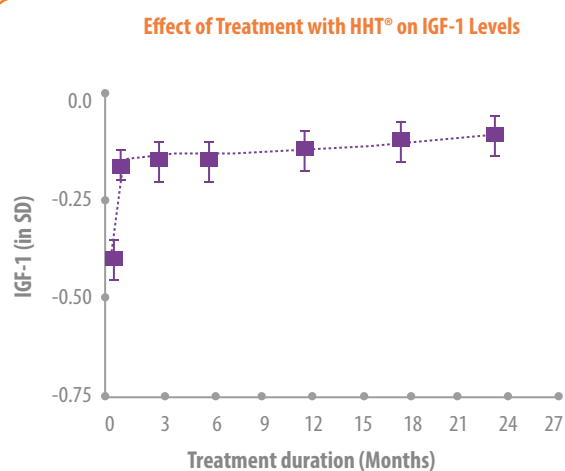


Figure 2

Effect of treatment with HHT® on the level of circulating IGF-1 over 2 years of treatment



- Furthermore, treatment with HHT® was associated with a significant increase in IGF-1 (Figure 2), IGFBP3, and ALS levels.¹

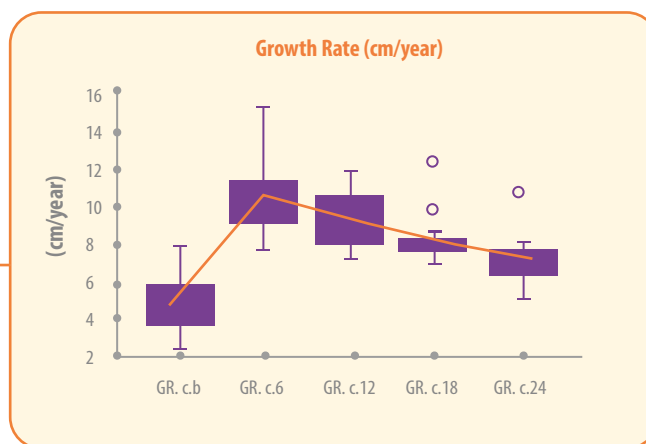
Children with Intrauterine Growth Restriction

- In children with intrauterine growth restriction who did not spontaneously complete compensatory growth during their first years of life, **treatment with HHT® significantly improved growth rate** (Figure 3), allowing rapid achievement of a height within the normal range with an acceptable safety profile.^{1,5}

Figure 3

Growth rate (cm/year) throughout treatment¹

Full boxes show the values obtained from 50% of patients, and upper and lower hemidistributions show the remaining 25% above and below, respectively.



The Importance of Treatment Adherence

- Several studies have demonstrated that suboptimal adherence to growth hormone therapy affects its long-term effectiveness, leading to:⁶

Delay in growth response and growth rate results⁶

Decrease in linear growth⁶

Lower final height in adulthood⁶

- Furthermore, suboptimal treatment adherence could also impact on other clinical results and patients' quality of life.⁷

ADHERENCE TO GROWTH HORMONE TREATMENT IS ESSENTIAL FOR ACHIEVING THERAPEUTIC GOALS.⁶

FIRST ARGENTINE GROWTH HORMONE

HHT[®]
Somatropin **PEN**
I can do it by myself!

SAFE AND PRACTICAL ADMINISTRATION

- User-friendly auto-injector pen for somatropin administration
- It allows for dose adjustment according to age, weight, and diagnosis
- Each 3 mL cartridge contains 20 mg (60 IU) of somatropin
- 100% liquid formulation

EXTENSIVE CLINICAL USE EXPERIENCE

- Over 20 years of clinical experience in Argentina
- Present in over 17 countries worldwide

PATIENT BENEFITS

- Improvement in patient's social and emotional life
- Significant metabolic benefits
- Patient-adapted dosing

HHT[®] PEN PROVIDES
PATIENTS WITH PRECISE,
SAFE, AND CONVENIENT
ADMINISTRATION OF THEIR
RECOMMENDED DOSE OF
SOMATROPIN



100% Liquid Formulation for Use with the Auto-Injector Pen



HHT® PEN BENEFITS GROWTH AND METABOLISM, IMPROVING PATIENTS' SOCIAL AND EMOTIONAL LIFE.

Bio es Vida®. Your direct contact.

Bio es Vida® is a patient program including:

- Free-of-charge patient starter kit
- Nurse counselling
- Treatment access program



**Personalized
support line**

Abbreviations: **AIDS:** acquired immunodeficiency syndrome. **ALS:** acid labile subunit. **IGF-1:** insulin-like growth factor-1. **IGFBP3:** insulin-like growth factor binding protein-3. **IUGR:** intrauterine growth restriction.

References: **1.** Product Monograph. HHT® Somatropin. BIOSIDUS S.A. **2.** Prescribing Information. HHT® Pen (Somatropin). BIOSIDUS S.A. October 2015. **3.** Tidblad A. The history, physiology and treatment safety of growth hormone. *Acta Paediatr.* 2022 Feb;111(2):215-224. **4.** López-Siguero JP, Pfäffle R, *et al.* Ten years' clinical experience with biosimilar human growth hormone: a review of efficacy data. *Drug Des Devel Ther.* 2017 May 16;11:1489-1495. **5.** Bergadá I, Blanco M, *et al.* Tratamiento con hormona de crecimiento en niños menores de 6 años de edad, con talla baja, nacidos pequeños para la edad gestacional. *Arch Argent Pediatr.* 2009; 107(5):410-416. **6.** Graham S, *et al.* Exploring Potentially Modifiable Factors That Influence Treatment Non-Adherence Amongst Pediatric Growth Hormone Deficiency: A Qualitative Study. *Patient Prefer Adherence.* 2020 Oct 13;14:1889-1899. **7.** Loftus J, Chen Y, *et al.* Suboptimal adherence to daily growth hormone in a US real-world study: an unmet need in the treatment of pediatric growth hormone deficiency. *Curr Med Res Opin.* 2021 Dec;37(12):2141-2150.

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