

Idiopathic Short Stature



Introduction

- Idiopathic short stature (ISS) is a condition of short stature in which no known or genetic cause for short stature can be identified¹⁻³
- Children with ISS are more than 2 SD below the corresponding mean height for a given age and sex without evidence of identifiable systemic, endocrine, nutritional, or chromosomal abnormalities¹⁻³
- Children with ISS are growth-hormone-sufficient with a birth weight, size, and body proportions that align with the general population^{2,3}



Diagnosis

- A diagnosis of ISS requires comprehensive evaluation including medical history, physical examination, and laboratory and auxological assessments to exclude common causes of short stature²⁻⁴
- Growth hormone deficiency must be excluded³



Management

- Clinical guidelines support the use of GH treatment for children with ISS¹
- Predictors of positive growth response to GH treatment include younger age, heavier weight, higher GH doses, parental heights that align with the general population, and lower baseline IGF-1 concentrations^{3,4}

Abbreviations: GH, growth hormone, IGF-1, insulin-like growth factor 1; ISS, idiopathic short stature; SD, standard deviation.

References: 1. Grimberg A, et al. *Horm Res Paediatr*. 2016;86(6):361-397. 2. Wit JM, et al. *Growth Horm IGF Res*. 2008;18(2):89-110. 3. Cohen P, et al. *J Clin Endocrinol Metab*. 2008;93(11):4210-4217. 4. Pedicelli S, et al. *J Clin Res Pediatr Endocrinol*. 2009;1(3):105-115.