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primary studies - published RCT

## **Growth hormone improves clinical status in prepubertal children with cystic fibrosis: results of a randomized controlled trial.**

**Code:** PM11713439

**Year:** 2001 **Date:** 2001

**Author:** Hardin DS

### **Study design (if review, criteria of inclusion for studies)**

RCT

### **Participants**

Nineteen prepubertal CF children

### **Interventions**

control (NonTX, n = 9) or to daily injections of GH (0.3 mg/kg/wk) (GHTX, n = 10) for 1 year.

### **Outcome measures**

Every 3 months height, weight, and lean tissue mass were measured. Caloric intake, resting energy expenditure, pulmonary function, and respiratory muscle strength were measured every 6 months, as were total number of hospitalizations and courses of outpatient intravenous antibiotics

### **Main results**

The GHTX group had significantly greater height, height velocity (NonTX = 3.8 +/- 1.4 cm/y, GHTX = 8.1 +/- 2.4 cm/y; P =.002), weight, weight velocity (NonTX = 2.1 +/- 0.9 kg/y, GHTX = 4.5 +/- 1.1 kg/y; P =.004), and change in lean tissue mass (NonTX = 2.1 +/- 1.6 kg, GHTX = 4.7 +/- 1.7 kg; P =.01) analyzed by the Student t test. The GHTX group had significant improvement in delta forced vital capacity compared with the year before study, and respiratory muscle strength improved. The number of hospitalizations and outpatient intravenous antibiotic courses significantly decreased in the GHTX group but did not change in the NonTX group. No subject had development of cystic fibrosis-related diabetes.

### **Authors' conclusions**

Results of the first randomized controlled trial of GH treatment in cystic fibrosis indicate that GH improves growth and clinical status.

<http://dx.doi.org/10.1067/mpd.2001.117578>

### **See also**

J Pediatr. 2001 Nov;139(5):636-42.

### **Keywords**

Child; Growth Hormone; Hormones; pharmacological\_intervention;