

Table I-8 Growth Charts for Specific Syndromes

Condition	Reference(s)
Achondroplasia	Hagenäs L, Hertel T. Skeletal dysplasia, growth hormone treatment and body proportion: Comparison with other syndromic and non-syndromic short children. <i>Horm Res</i> 2003;60:65–70. Height for boys and girls, 0–20 yr; sitting height to total height ratio in girls, 0–20 yr Horton WA, Rotter JI, Rimoin DL, et al. Standard growth curves for achondroplasia. <i>J Pediatr</i> 1978;93:435–8. Stature, growth velocity, head circumference, upper and lower segments
Brachmann (Cornelia)-de Lange syndrome	Kline AD, Barr M, Jackson LG. Growth manifestations in the Brachmann-de Lange syndrome. <i>Am J Med Genet</i> 1993;47:1042–49. Length- and weight-for-age, birth to 36 mo; height- and weight-for age, 2–18 yr; head circumference-for-age, birth to 18 yr
Cerebral palsy quadriplegia	Krick J, Murphy-Miller P, Zeger S, et al. Pattern of growth in children with cerebral palsy. <i>J Am Diet Assoc</i> 1996;96(7):680–5* Stature- and weight-for-age and weight-for-stature, birth to 10 yr Stevenson RD, Conaway M, Chumlea WC, et al. Growth and health in children with moderate-to-severe cerebral palsy. <i>Pediatrics</i> 2006;118:1010–8* Knee height-for-age, weight-for-age, and other measures, 2–18 yr
Down syndrome	Cronk CE. Growth of children with Down's syndrome: Birth to age 3 yr. <i>Pediatrics</i> 1978;61:564–68 and <i>Pediatrics</i> 1988;81:102–10.* Length-for-age and weight-for-age, birth to 36 mo; stature-for-age and weight-for-age, 2–18 yr Palmer CGS, Cronk C, Pueschel SM, et al. Head circumference of children with Down syndrome (0–36 months). <i>Am J Med Genet</i> 1992;42:61–7* Head circumference-for-age, 0–36 mo Styles ME, Cole TJ, Dennis J, et al. New cross sectional stature, weight, and head circumference references for Down's syndrome in the UK and Republic of Ireland. <i>Arch Dis Child</i> 2002;87:104–8. Weight and height, 0–18 yr; head circumference, 0–5 yr (UK and Ireland)
Marfan's syndrome	Pyeritz RE. Marfan syndrome and other disorders of fibrillin. In: Rimoin DL, Connor JM, Pyeritz RE, editors. <i>Principles and Practice of Medical Genetics</i> . New York: Churchill Livingstone; 1997. Pyeritz RE, Murphy EA, Lin SJ, et al. Growth and anthropometrics in the Marfan syndrome. In: Papadatos CJ, Bartsocas CS, editors. <i>Endocrine Genetics and Genetics of Growth (Prog Clin Biol Res v200)</i> . New York: Alan R. Liss, Inc.; 1985. Stature- and weight-for-age, 2–18 yr, 20–24 yr, and >24 yr; upper and lower segment ratios, 2–20 yr and adult
Myelomeningocele	Appendix II, Growth grids for special conditions. In: Ekvall SW, Ekvall VK, editors. <i>Pediatric Nutrition in Chronic Diseases and Developmental Disorders: Prevention, Assessment, and Treatment</i> . New York: Oxford University Press; 2005. Preliminary charts, height- and weight-for-age, 2–18 yr Duval-Beaupere G, Kaci M, Lougovoy J, et al. Growth of trunk and legs of children with myelomeningocele. <i>Dev Med Child Neurol</i> 1987;29:225–31. Height, upper segment, lower segment measurements, 1–16 yr Trollmann R, Dorr HG, Strehl E, et al. Growth and pubertal development in patients with meningomyelocele: A retrospective analysis. <i>Acta Paediatr</i> 1996;85:76–80. Arm span
Noonan's syndrome	Witt DR, Biedermann B, Hall JG. <i>Clin Genet</i> 1986;30:150–3. Stature-for-age, birth to 18 yr Ranke MB, Heidemann P, Knupfer C, et al. Noonan syndrome: Growth and clinical manifestations in 144 cases. <i>Eur J Pediatr</i> 1988;148:220–7. Height-for-age
Prader-Willi syndrome	Holm VA. Appendix I. Greenswag LR, Alexander RC, editors. In: <i>Management of Prader-Willi Syndrome</i> . New York: Springer Verlag; 1998. p. 317. Height-for-age, 3–25 yr Butler MG, Meaney FJ. Standards for selected anthropometric measurements in Prader-Willi syndrome. <i>Pediatrics</i> 1991;88:853–60* Weight, height, sitting height, head circumference, triceps and subscapular skinfold, plus other measures, 2–22 yr
Sickle cell disease	Phebus CK, Gloninger MG, Maciak BJ. Growth patterns by age and sex in children with sickle cell disease. <i>J Pediatr</i> 1984;105:28–33. Height- and weight-for-age, birth to 18 yr Tanner JM, Davies PS. Clinical longitudinal standards for height and height velocity for North American children. <i>J Pediatr</i> 1985;107:317–29. Height velocity (cm/yr), 2.5–19 yr Stevens MCG, Maude GH, Cupidore L, et al. Prepubertal growth and skeletal maturation in children with sickle cell disease. <i>Pediatrics</i> 1986;78:124–32. Weight, height, height velocity, bone age, 0–9 yr
Silver-Russell syndrome	Tanner JM, Lejarraga H, Cameron N. The natural history of the Silver-Russell syndrome: A longitudinal study of thirty-nine cases. <i>Pediatr Res</i> 1975;9:611–23. Height- and height velocity-for-age, 2–19 yr (includes periods of treatment with human growth hormone)
Turner syndrome	Lyon AJ, Preece MA, Grant DB. Growth curve for girls with Turner syndrome. <i>Arch Dis Child</i> 1985;60:932–5* Height-for-age, 2–19 yr (girls) Ranke MB, Pfluger H, Rosendahl W, et al. Turner syndrome: Spontaneous growth in 150 cases and review of the literature. <i>Eur J Pediatr</i> 1983;141:81–8* Height- and height velocity-for-age, bone age
Williams-Beuren syndrome	Morris CA, Demsey SA, Leonard CO, et al. Natural history of Williams syndrome: Physical characteristics. <i>J Pediatr</i> 1988;113:318–26. Stature-for-age, birth to 24 mo and birth to 18 yr; weight-for-age, birth to 18 yr; head circumference-for-age, birth to 36 mo and 2–18 yr Pankau R, Partsch CJ, Gosch A, et al. Statural growth in Williams-Beuren syndrome. <i>Eur J Pediatr</i> 1992;151:751–5* Height-for-age, head-circumference-for-age Pankau R, Partsch CJ, Neblung A, et al. Natural history of body mass index in Williams-Beuren syndrome. <i>Am J Med Genet</i> 1994;52:51–4. BMI-for-age, both genders, 0–18 yr

*A copy of the growth chart is included in this appendix.