

# GROWTH CHARTS FOR HEIGHT, WEIGHT AND BODY-MASS INDEX OF TWINS DURING INFANCY

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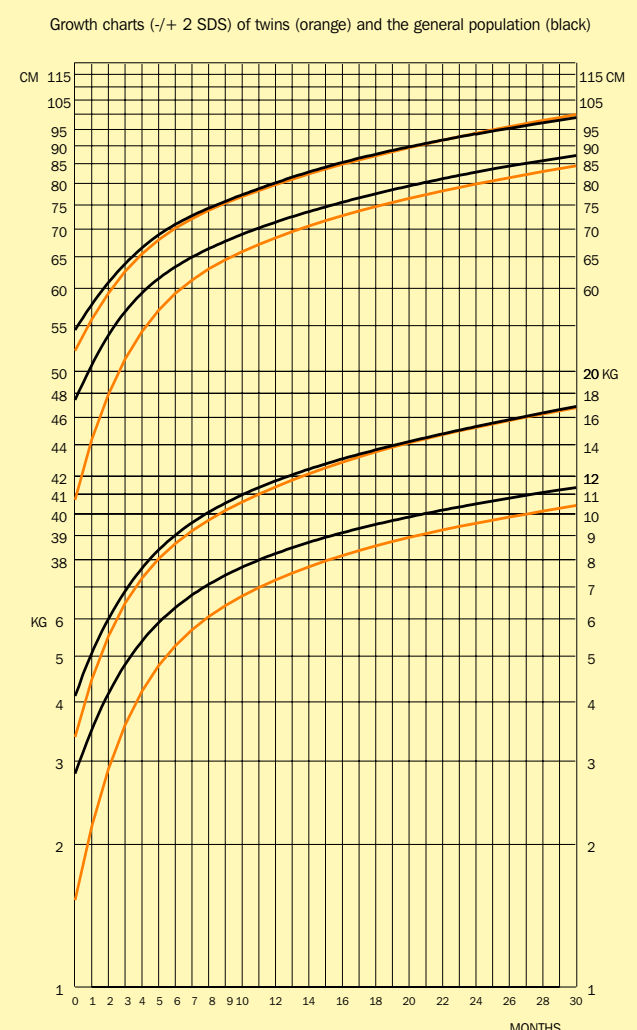


**OBJECTIVE:** To determine the magnitude of the growth retardation in Dutch monozygotic and dizygotic twins during infancy in comparison with the Dutch reference growth charts for general population infants and to construct reference growth charts for twins.

**METHODS:** The growth of twins was studied using longitudinal data on over 4000 Dutch twin pairs from birth until 2.5 years of age of the Netherlands Twin Register (NTR). The LMS method was used to obtain growth charts for height, weight and body-mass index (BMI) for twin pairs during infancy. Centiles were estimated by the Box-Cox power curve (L), the median curve (M) and the coefficient of variation curve (S).

**RESULTS:** The Table gives height, weight and BMI Standard Deviation Scores (SDS) for several age groups. During the first 2.5 years of life differences in height and weight between Dutch twins and infants from the general population decrease but do not disappear. The BMI deviates less from that of the reference population. Approximately half of the growth retardation from birth until 1.5 years was attributable to gestational age. Between 1.5 years and 2.5 years of age, this difference was reduced to one third. Thus, a substantial part of the growth difference could not be explained by gestational age.

Mean SDS	Observed data / Corrected for gestational age		
	Height	Weight	BMI
Age in years	Height	Weight	BMI
< 0.5	-1.24 / -0.59	-1.33 / -0.73	-0.56 / -0.39
0.5-1.4	-0.57 / -0.31	-0.60 / -0.39	-0.28 / -0.21
1.5-2.5	-0.30 / -0.10	-0.28 / -0.09	-0.07 / 0.03



## CONCLUSIONS:

During the first 2.5 years of life, there is a difference in growth between Dutch twins and infants from the general population despite correcting for gestational age. We therefore recommend using the reference growth charts of twins designed by the authors.