

Are Children Born Small for Gestational Age at Increased Risk of Short Stature?

In Israel all children are evaluated at 17 years of age for military service, and thus the authors were able to determine adult or near-adult heights of 30 boys and 34 girls born from 1970 to 1971 at 39 weeks gestation who were small for gestational age (SGA = birth weight below the 3rd percentile for the study population) and who had no identifiable cause for being SGA. The mean height of the males at 17 years of age was

169.4 cm and that of the females was 160.3 cm. These values were 5.8 cm and 3.4 cm (respectively) less than those of control subjects of appropriate size for gestational age (AGA). The distribution of heights was shifted to the left in comparison to that of the AGA population in both sexes (Figure 1). Mean weights were 2.1 kg and 1.9 kg less than those of AGA boys and girls, respectively, but body mass indices were similar in SGA and AGA subjects. The investigators also calculated the odds ratio that SGA individuals would be less than the 10th percentile for height as an adult (4.13 for males, 3.32 for females).

Paz I, et al. *AJDC*. 1993;147:337-339.

Editor's comment: These data indicate that otherwise normal SGA infants are significantly smaller as adults than are AGA infants. Although data on bone age and stage of sexual maturation are not provided, the authors cite other data indicating that neither bone age nor age of pubertal onset is delayed in SGA subjects. Chaussain et al¹ reported that the mean adult height of 21 French SGA boys born at term was 162.8 cm and that of 23 SGA girls 147.6 cm; this is 7.2 cm and 9.9 cm, respectively, less than adult heights predicted in earlier childhood. Interestingly, the adult heights of the French SGA subjects were substantially lower than those of the SGA Israelis. Whether any therapeutic intervention would be useful or should even be considered in regard to the growth of these subjects is a matter of current investigation.

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1. Chaussain JL, et al. Actual versus predicted final adult height in patients with intrauterine growth retardation (IUGR). *Pediatr Res*. 1993;33:S38. Abstract 210.

