

Standard for Selected Anthropometric Measurements in Males With the Fragile X Syndrome

Butler et al prepared anthropometric data on 185 white males (ages 0 to 26 years) with fragile X syndrome confirmed by chromosome analysis. Height, weight, head circumference, ear length, and testicular volume were measured; similar control data were collected and utilized for comparison. Standards were then developed for the 5th, 50th, and 95th percentiles of both groups. At least 7 individuals were measured at each 1-year age interval.

The curves produced showed remarkable similarity in height and weight between fragile X subjects and controls, with the exception of a slight tendency for obesity in the affected individuals at approximately 12 years of age. Head circumference was slightly increased at all ages. Ear length at the 5th, 50th, and 95th percentiles was consistently above the respective values for normals at all ages (see Figure 1), as were testicular volumes. The 50th percentiles for testicular volumes approximated the control 95th percentile until 6 years of age, after which both the 50th and 95th

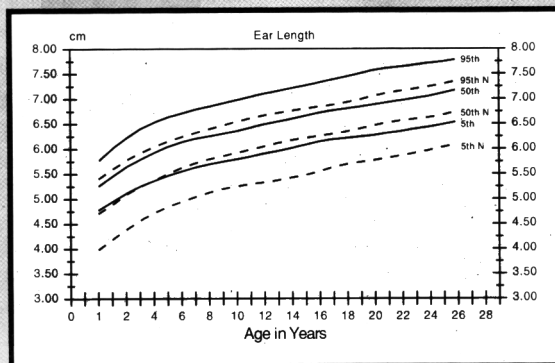
percentiles were markedly greater than the control 95th percentile (see Figure 2).

Butler MG, Brunschwig A, Miller LK, et al. *Pediatrics* 1992;89:1059-1062.

Editor's comment: The author states that fragile X syndrome is the most common genetic cause of mental retardation in males except for Down syndrome. The fragile X syndrome accounts for 30% to 50% of families with male mental retardation. The data presented in this article, in particular ear length and testicular volume, may be useful in identifying individuals for whom diagnostic chromosomal studies for fragile X are indicated. The etiology of these findings is not known.

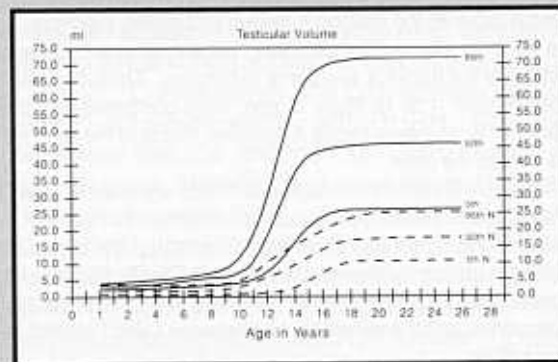
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Figure 1



Standardized curves for ear length of males with fragile X syndrome (solid line) and normal individuals (broken line).

Figure 2



Standardized curves for testicular volume of males with fragile X syndrome (solid line) and normal individuals (broken line).