

Body composition of ambulatory children with mild cerebral palsy

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Background– Children with cerebral palsy (CP) are frequently shorter and lighter than their non-disabled peers and have alterations in body composition (1). Bioelectrical impedance is a quick, straightforward technique for the measurement of total body water (TBW).

Objective– To determine differences in TBW, FFM and percent body fat (%BF) between mildly affected children with CP and non-disabled controls.

Design– Cross sectional, observational study of 18 ambulatory children with CP (10 males) and 21 similarly aged non-disabled controls (12 males). Height and weight were measured using standard calibrated equipment. Impedance was measured using the Bodystat 1500. TBW was calculated from impedance (2). FFM was determined from TBW using hydration constants (3).

Outcomes- No biologically or statistically significant differences were found between the children with CP and the control group for any of the measures of body size or composition.

Conclusion- These data suggest that short stature and poor nutritional status are not inevitable in children with CP.

	Age (yr)	Weight (kg)	Height (cm)	TBW (L)	FFM (kg)	BF (%)
Control	8.23 ± 2.21	26.29 ± 8.27	125.4 ± 12.2	14.5 ± 3.6	19.0 ± 4.9	26 ± 9
CP	8.54 ± 2.39	26.31 ± 6.61	126.8 ± 12.1	14.4 ± 2.8	18.9 ± 3.7	26 ± 11

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