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David Thivel, Julien Verney, Maud Miguët, Julie Masurier, Charlotte Cardenoux, C. Lambert, Daniel Courteix, Lore Metz, Bruno Pereira

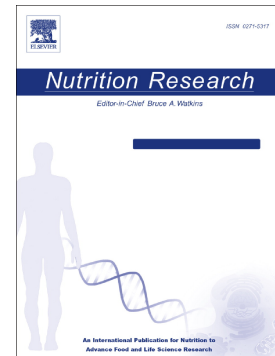
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The accuracy of bioelectrical impedance to track body composition changes depends on the degree of obesity in adolescents with obesity

Thivel D.^{a,b}, Verney J.^{a,b}, Miguet M.^{a,b}, Masurier J.^c, Cardenoux C.^c, Lambert C.^d, Courteix D.^{a,b}, Metz L.^{a,b}, Pereira B.^d

^aLaboratory of the Metabolic Adaptations to Exercise under Physiological and Pathological Conditions (AME2P), UE3533, Clermont Auvergne University, 63170 Aubiere CEDEX, France

^bAuvergne Research Center for Human Nutrition (CRNH), 63000 Clermont-Ferrand, France

^cChildren Medical Center, Pediatric Obesity Department, 63152 Romagnat, France

^dClermont-Ferrand University hospital, Biostatistics unit (DRCI), 63000 Clermont-Ferrand, France

^eUGECAM Nutrition Obesity Ambulatory Hospital, Clermont-Ferrand, France

Julien Verney (julien.verney@univ-bpclermont.fr), Lore Metz (Lore.Metz@univ-bpclermont.fr), Charlotte Cardenoux (c.cardenoux@centremedicalinfantile.com), Bruno Pereira (bpereira@chu-clermontferrand.fr), David Thivel (thiveldavid@hotmail.com), Masurier Julie (julie.masurier@ugecam-alpc.cnamts.fr), Miguet Maud (maud.miguet@gmail.com), Daniel Courteix (courteix.daniel@uca.fr)

Address for correspondence:

THIVEL David (PhD, HDR)

Clermont University, Blaise Pascal University, EA 3533, Laboratory of the Metabolic Adaptations to Exercise under Physiological and Pathological Conditions (AME2P), BP 80026, F-63171 Aubière cedex, France

thivel.david@uca.fr

Phone and fax/ 0033 4 73 40 76 79

Abstract

The aim of the present study was to assess the sensitivity of bio-impedance (BIA) in tracking body composition changes in adolescents with various degrees of obesity. We hypothesized that while BIA provides a reliable measure of body composition, its accuracy decreases with increasing obesity and its ability to track changes might be reduced with higher degree of body weight and body composition. Whole-body and segmental body composition were assessed by bio-impedance analysis (BIA-Tanita MC-780) and dual x-ray absorptiometry (DXA, Hologic) among 196 obese adolescents (Tanner stage 3-5) aged 14 ± 0.9 years old, before and after a 3-month weight loss program. Except for the measurement of FFM (kg) ($r = 0.03$; $p = 0.721$; $\rho = 0.107$; $p =$

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