Reviewer's report

Title: Validity of new child-specific thoracic gas volume prediction equations

Version: 2 Date: 16 February 2006

Reviewer: Manfred J Müller

Reviewer's report:

General the paper is worthwhile publishing.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Abstract, results, bias should be given (deviation in estimates of TGV and %fat mass.

Introduction, isothermal and isothermal-like, please explain.

Whole manuscript, there are considerable confusions with respect to the references, e.g. ref. 20 is not on non-European American children etc. Please check all citations and references throughout the MS.

p5 and p12, Portugal sample, these children are considered as athletic. This seems to be mainly based on their participation within leisure time sports activities. Since however an exact characterisation of sport activities as well as their intensities is missing the use of the term athletic is questionable to me. In addition faced with the high prevalence of childhood obesity there is need for verification in overweight and obese children.

Tab.1, prevalence of overweight and obesity should be given.

Tab.2, units are missing, the should analyse the between-group differences in the different parameters tested.

Tab.3 and 4, it is unclear whether the p-values given refer r-values or the bias.

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Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field
Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
I have no competing interests.