

# Cardiometabolic risk and variation of fat/adipose content according to body mass index in children from six to nine years old [Riesgo cardiometabólico y variación en el contenido graso/adiposo según el índice de masa corporal en niños de seis a nueve años]

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**Introduction:** Child excess weight has been associated with obesity in adulthood and, as a consequence, increased risk of death due to cardiometabolic factors. **Objective:** To identify whether BMI reflects changes in the content and distribution of fat/adipose tissue and the cardiometabolic risk in children between six and nine years old. **Material and methods:** Participants were 537 children (59.8% women) randomly selected. BMI, waist circumference (WC), waist-height index (WHI), body composition, nutritional status and cardiometabolic risk were determined. Student's t-test, one-way ANOVA, Pearson's correlation, Chi-square and diagnostic concordance were applied. An alpha  $\alpha$  0.05 was considered. **Results:** Direct and significant correlations between nutritional status and the anthropometric parameters studied are shown, except for the percentage of adiposity. There were significant variations ( $p < 0.05$ ) in the percentage of fat and adiposity according to nutritional status of the sample. In addition, there was consistency between the variation of the nutritional status with the cardiometabolic risk evaluated through WC and WHI. **Conclusion:** BMI identifies the differences in the amount of fat/adipose tissue in the children between six and nine years old when categorized according to nutritional status. In addition, it reflects direct association with cardiometabolic risk. © 2019, ARAN Ediciones S.A. All rights

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Anthropometry

Body mass index

Children

Risk factors

body composition

body height

body mass

cardiovascular disease

child

female

human

male

metabolic disorder

mortality

nutritional status

obesity

risk

waist circumference

Adiposity

Body Composition

Body Height

Body Mass Index

Cardiovascular Diseases

Child

Female

Humans

Male

Metabolic Diseases

Nutritional Status

Risk

Waist Circumference