

FLUIDS INTAKE BETWEEN NORMALWEIGHT CHILDREN AND METABOLICALLY HEALTHY OBESE CHILDREN: A COMPARATIVE REVIEW

Introduction

The relationship between obesity and fluid intake in children has been poorly studied. There are few results in the literature that help us to identify those mechanisms that influence the hydration level in school population.

Objective

The aim of the present study was to compare the levels of fluid intake in metabolically healthy obese children and normal weight children through a systematic review.

Material & Method

The Web of Science, Medline and Pubmed databases were used for searching articles, delimiting the review from 1987 to 2017. The following keywords have been used:

BASIC DESCRIPTORS
<input checked="" type="checkbox"/> Hydration
<input checked="" type="checkbox"/> Fluid intake
<input checked="" type="checkbox"/> Water intake
<input checked="" type="checkbox"/> Ingestion of liquids
<input checked="" type="checkbox"/> Nutrition
<input checked="" type="checkbox"/> Dietetic food
AGE DESCRIPTORS
<input checked="" type="checkbox"/> Children
<input checked="" type="checkbox"/> Childhood
<input checked="" type="checkbox"/> Child
<input checked="" type="checkbox"/> Girl
<input checked="" type="checkbox"/> Baby
<input checked="" type="checkbox"/> Youth
<input checked="" type="checkbox"/> Schoolchildren
<input checked="" type="checkbox"/> Student
BODY COMPOSITION TERMS
<input checked="" type="checkbox"/> Obesity
<input checked="" type="checkbox"/> Overweight
<input checked="" type="checkbox"/> Normal weight

Results

A total of 103 articles were found by the search engines after redefining by title, of which 13 were finally selected after being reviewed by two experts.

Table 1. Featured articles and results found.

Author (year)	Topic	Sample	Conclusion
Iglesia et al. (2015)	Total fluid intake	3611 children (4-9 years) and 8109 adolescents (10-18 years)	A high proportion of children and adolescents are at risk of an inadequate fluid intake
Ferberbaum et al. (2012)	Fluid intake patterns	831 children and adolescents (3-17 years of age)	The proportion of water remained constant in about 1/3 of the total volume.
Fenández-Alvira et al. (2014)	Fluid intake patterns	238 children and adolescents (3-17 years of age)	The large majority of young population did not meet the recommendations for total water intake.
Milla et al. (2014)	Beverage intake and weight status	373 children (9-11 years)	Overweight-obese boys consumed less fruit juices and milk drinks and girls ingested less diet drinks and whole milk than their normalweight counterparts
Maffeis et al. (2016)	Hydration status in obese vs normal weight children	86 obese and 89 normal weight children (7-11 years)	Obese children were less hydrated than normal weight ones

Conclusions

- ▶ Obese schoolchildren, especially boys, are less hydrated than normal weight children.
- ▶ Children with obesity consume less natural juices and milk drinks.
- ▶ The level of fluid intake seems to be conditioned by parental formation.
- ▶ Finally, the recommendations about water intake are not met in all categories and studies analyzed.

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References

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