[J Asthma.](http://www.ncbi.nlm.nih.gov/pubmed/23368279%22%20%5Co%20%22The%20Journal%20of%20asthma%20%3A%20official%20journal%20of%20the%20Association%20for%20the%20Care%20of%20Asthma.) 2013 Apr;50(3):267-73. doi: 10.3109/02770903.2012.757774. Epub 2013 Jan 31.

**The prevalence of wheezing and its association with body mass index and abdominal obesity in children.**

[Silva Rde C](http://www.ncbi.nlm.nih.gov/pubmed/?term=Silva%20Rde%20C%5BAuthor%5D&cauthor=true&cauthor_uid=23368279)1, [Assis AM](http://www.ncbi.nlm.nih.gov/pubmed/?term=Assis%20AM%5BAuthor%5D&cauthor=true&cauthor_uid=23368279), [Goncalves MS](http://www.ncbi.nlm.nih.gov/pubmed/?term=Goncalves%20MS%5BAuthor%5D&cauthor=true&cauthor_uid=23368279), [Fiaccone RL](http://www.ncbi.nlm.nih.gov/pubmed/?term=Fiaccone%20RL%5BAuthor%5D&cauthor=true&cauthor_uid=23368279), [Matos SM](http://www.ncbi.nlm.nih.gov/pubmed/?term=Matos%20SM%5BAuthor%5D&cauthor=true&cauthor_uid=23368279), [Barreto ML](http://www.ncbi.nlm.nih.gov/pubmed/?term=Barreto%20ML%5BAuthor%5D&cauthor=true&cauthor_uid=23368279), [Pinto Ede J](http://www.ncbi.nlm.nih.gov/pubmed/?term=Pinto%20Ede%20J%5BAuthor%5D&cauthor=true&cauthor_uid=23368279), [Silva LA](http://www.ncbi.nlm.nih.gov/pubmed/?term=Silva%20LA%5BAuthor%5D&cauthor=true&cauthor_uid=23368279), [Rodrigues LC](http://www.ncbi.nlm.nih.gov/pubmed/?term=Rodrigues%20LC%5BAuthor%5D&cauthor=true&cauthor_uid=23368279), [Alcantara-Neves NM](http://www.ncbi.nlm.nih.gov/pubmed/?term=Alcantara-Neves%20NM%5BAuthor%5D&cauthor=true&cauthor_uid=23368279).

**Abstract**

**OBJECTIVE:**

To evaluate the relative importance of body mass index (BMI) and abdominal obesity in the prevalence of wheezing in Brazilian children.

**MATERIALS AND METHODS:**

This is a cross-sectional study of male and female students, 6-12 years old, from the public elementary schools of São Francisco do Conde, Bahia, Northeast Brazil. Reports of wheezing in the past 12 months were collected using a questionnaire from the International Study of Asthma and Allergies in Childhood Program (ISAAC) phase III, adapted to Portuguese. Anthropometric, demographic, and socioeconomic information was collected. Multivariate logistic regression analyses were used to assess the associations of interest.

**RESULTS:**

Of the children surveyed, 10.6% reported wheezing. Excess weight was observed in 16.2%, 10.5%, and 7.9% of the sample, measured by BMI, waist circumference (WC), and the waist-to-height ratio (WHtR), respectively. The percentage of patients with wheezing attributable to BMI ≥ 85th percentile (8.2%) slightly exceeded those identified with abdominal obesity, WC ≥ 80th percentile (7.3%) and WHtR > 0.5 (7.1%).

**CONCLUSION:**

The results suggest that an excess of fat deposits, either in the abdominal region or elsewhere in the body, increased the risk of wheezing. Since obesity is an important public health problem worldwide, control of this problem may partially reduce the occurrence of wheezing in youth.