

## For the Patient

The full report is titled "Recurrent wheezing, allergic rhinitis and maternal asthma as predictors of asthma in children." It is in the May 2020 issue of *Allergy Asthma Proceedings* (volume 41, pages 204 to 209). The authors are Ilson Meireles-Neto, Alexandre M. Pimentel, Juliana do N. Parreira, Maria-Socorro H. Fontoura, and Cristiana M. Nascimento-Carvalho.

*For the Patient* is provided to physicians so that the patients can better understand the language of modern medicine.

*For the Patient* is written by the editors (Bellanti, JA and Settignano, RA) and provided to practitioners so that patients can better understand the usefulness of new information resulting from medical research.

*For the Patient* is intended for informational purposes only. This educational synopsis is not meant as a substitute for medical advice. If you have questions regarding this material or are in need of medical advice, please contact your physician. Reproduction is limited to not-for-profit educational purposes only. All other reproductions must be approved by OceanSide Publications.

### Wheezing in childhood and risk of asthma

**W**heezing is a common childhood symptom and usually means that a child is having some trouble breathing. Although often associated with asthma, it is important to keep in mind that many infants and younger children wheeze when they get common viral infections, such as those caused by the influenza virus. The good news is that they may never wheeze again and may not develop asthma. Another useful clue for parents is that, if no one else in the family has asthma or other "allergic" conditions, such as eczema, food allergies, or hay fever, then it is probably not asthma. In a recent report, Meireles-Neto and co-workers from the Department of Pediatrics, Federal University of Bahia School of Medicine, Salvador, Brazil performed a study to determine if children with recurrent wheezing during the first 3 years of life were predisposed to develop asthma in later life.

#### Why Did the Researchers Do This Particular Study?

To investigate the relationship of wheezing in childhood with the subsequent development of asthma.

#### Who or What Was Studied?

The medical records of 125 children diagnosed with asthma (cases) and 375 children screened for pulmonary illnesses and without asthma (controls) were reviewed together with maternal histories of allergic disease to determine which factors could be useful predictors of asthma in later life.

#### How Was the Study Done?

The researchers found that children with a history of more than three episodes of wheezing during the first 3 years of life were at least 37 times more likely to develop asthma than children without this history. A maternal history of asthma and a personal history of allergic rhinitis were also found to be useful predictors of asthma in children.

#### What Were the Limitations of the Study?

Because this was a retrospective study performed from a single site, it may have information bias due to possible inaccurate clinical records, loss to follow up, and missing data.

#### What Are the Implications of the Study?

This study demonstrates the importance of a history of several bouts of wheezing as an important determinant of subsequent development of asthma in later life. The correlation with a history of a maternal history of allergic disease stresses the importance of the family history and genetics as other important determinants of susceptibility to asthma. □