



Causes and Treatment for Intermittent Wheezing in Young Children

“Phenotypes of Recurrent Wheezing in Preschool Children: Identification by Latent Class Analysis and Utility in Prediction of Future Exacerbation” A. Fitzpatrick et al., Southwest Environmental Health Sciences Center. Summary by Devin Ritter.

Wheezing is often seen in young children and is usually caused by something in their environment. Small children having difficulty breathing can hint at more dangerous health problems, such as asthma. Conditions like this can lower the overall quality of life. The purpose of this study was to predict which methods of treatment would be most helpful in treating wheezing. For some children, inhaled corticosteroid (ICS) treatment with inhalers worked well, while for others it did not. It is important to locate the causes of wheezing in children so we can better understand how to treat them. Caretakers of young children must know this information to watch for early signs of wheezing to provide correct treatment for the child.

Being exposed to different environments can be one cause of wheezing in children. In this study, there were four main groups that researchers studied. Those groups were:

- 1) Minimal sensitization
- 2) Sensitization with indoor pet exposure
- 3) Sensitization with tobacco smoke exposure
- 4) Multiple sensitizations with eczema

Sensitization:

The process of your body reacting to a substance. When your immune system becomes sensitized to a substance, it means your body will likely develop symptoms of an allergy each time you are exposed to that substance.

Children in the second and fourth group - sensitization with indoor pet exposure and multiple sensitizations with eczema - wheezed more than the other children. Study results conclude that when ICS treatment is used, these two groups of children did not wheeze as much. Researchers also discovered that ICS treatment for these groups lowers the likelihood of developing any wheezing symptoms altogether. The first and third groups - minimal sensitization and sensitization with tobacco smoke exposure - continued to wheeze, even with ICS treatment. Although ICS treatment has brought some significant improvement, all four groups still reported that some children still wheezed while participating in the study. This suggests that there is an existence of independent triggers that are not suppressed by low-dose ICS.

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