

National  
Organization of  
Mothers  
Of  
Twins  
Clubs, Inc.

SUBJECT: CONNECTIONS AMONG PARENT  
AND CHILD ATOPIC ILLNESSES

RESEARCHER: Edward Sarafino and Jarrett Goldfeder

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**PURPOSE:** The present study was designed to confirm findings regarding connections among parent and child allergic illnesses.

**METHOD:** Parents of twins provided the data as part of the larger FAMILY HEALTH SURVEY project. The parents were members of NOMOTC.

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#### BACKGROUND INFORMATION:

1. Atopic illnesses include allergic-type conditions, specifically: asthma, eczema, food allergies and hay fever.
2. Research has revealed two important features regarding connections among parents and child with atopic illnesses.
  - A. The frequency of asthma, hay fever, and eczema increases with the number of parents who have the disease. For example, if both parents have asthma, there is a stronger chance that the child will have asthma than if only one parent had it.
  - B. There is a chance that a child will have one of the atopic illnesses if his parents have any of them. For example, if the parent has asthma, there is a stronger chance that the child could have eczema or one of the other atopic illnesses than if the parent had none of the atopic illnesses. This is less consistent and a less strong finding than the features of "A" (the child having the SAME illness as the parent.)

#### RESULTS

1. Children are significantly more likely to develop an atopic illness if their parents are also afflicted than if their parents are not. It is more likely to be the same illness as the parent.
2. The child's risk of being atopic increases with the number of parents who are atopic. For example, the risk is higher if both parents have asthma than if only one did.
3. The severity of the atopic illness in the child was not related to the number of parents who had the illness. For instance, a child with severe asthma may have only one parent who had asthma, while a child with mild asthma may have both parents affected. There is no correlation between the number of parents with atopy and the severity of the illness in the child.

4. There was a correlation between the severity of the illness in the parent and the child only for eczema and hay fever but not asthma or food allergies. For example, a parent with severe eczema was more likely to have a child with severe eczema.
5. It was speculated that environmental factors, such as respiratory illnesses, affect the severity of asthma thus producing different degrees of severity.

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**CONCLUSION:**

These findings provide evidence for links between parent and child with regard to the presence and severity of atopic illnesses such as asthma, hay fever, eczema and food allergies.

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