



# Journal of Medical Sciences

ISSN 1682-4474

**science**  
alert

**ANSI***net*  
an open access publisher  
<http://ansinet.com>

## Asthma? Allergens Could Be Growing in Your Lungs

*Scientists investigating the allergic reactions that asthmatics suffer towards a common mould have discovered that many people with asthma actually had the mould growing in their own lungs.*

The research led by University of Leicester scientists at Glenfield Hospital has been published in the December 2010 issue of the American Journal of Respiratory and Critical Care Medicine.

The team based in the Institute for Lung Health at the University of Leicester and Glenfield Hospital examined the impact on asthmatics of a common environmental mould, *Aspergillus fumigatus*, usually found in soil and compost heaps.

Professor Andy Wardlaw from the University of Leicester said: "Asthma is a very common condition where the breathing tubes (bronchi) can go into spasm making it difficult to breathe. Around a fifth of adults with severe asthma, which they have had for a long time, get permanent (fixed) narrowing of their bronchi. It is known that *A. fumigatus* can grow in the lungs of some people with asthma and mould allergy, which can cause severe lung damage".

"This problem is thought to only affect a very small number of people with asthma; however, about half of people with severe asthma have evidence of allergy to moulds like *A. fumigatus*."

Researchers in the Institute for Lung Health at the University of Leicester and Glenfield Hospital, Leicester, carried out a study funded by the Midlands Asthma and Allergy Research Association a Midlands based charity

funding research into asthma and allergy research) and the European Regional Development Fund to determine whether the problem of *A. fumigatus* growing in the lungs is more common than previously thought, and whether this could explain the fixed narrowing of the airways that occurs in some people with asthma.

Professor Wardlaw added: "Our study showed that 6 out of 10 people with asthma who were allergic to *A. fumigatus* grew the mould from their sputum. We also found that if you were allergic to *A. fumigatus* you had more narrowing of the airways than if you were not allergic, and this was worse in patients from whom *A. fumigatus* was grown".

"Our research concluded that it is possible that fixed narrowing of breathing tubes in many people with asthma could be caused by *A. fumigatus* growing in their lungs.

"Treating individuals from whom *A. fumigatus* is detected with antibiotics against the mould may prevent fixed narrowing of the airways."

Abbie Fairs, Joshua Agbetile, Beverley Hargadon, Michelle Bourne, William R. Monteiro, Christopher E. Brightling, Peter Bradding, Ruth H. Green, Kugathasan Mutalithas, Dhananjay Desai, Ian D. Pavord<sup>1</sup>, Andrew J. Wardlaw and Catherine H. Pashley. IgE Sensitization to *Aspergillus fumigatus* Is Associated with Reduced Lung Function in Asthma. American Journal of Respiratory and Critical Care Medicine, December 2010