



EMBARGOED UNTIL
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Note to media: See abstract 293

Asthma Associated With Increased Risk of Diabetes, Heart Disease

SAN FRANCISCO – The Centers for Disease Control and Prevention (CDC) estimates that asthma affects approximately 24.6 million people in the United States.¹ But are asthmatics more likely to have other chronic conditions as well? According to a new population-based study presented at the 2011 Annual Meeting of the American Academy of Allergy, Asthma & Immunology (AAAAI), asthma appears to be linked to an increased risk of developing diabetes and heart disease.

“Asthmatics have a more allergy-prone immune environment called T-helper 2 (Th2) immune profile. This Th2 immune profile has a delicate balance with a counter-regulatory one called Th1 immune profile, which underlies proinflammatory conditions such as coronary artery disease, diabetes, rheumatoid arthritis and inflammatory bowel syndrome,” explained study author Young J. Juhn, MD, MPH. “Thus, one can hypothesize that there may be an inverse relationship between asthma and these proinflammatory conditions.”

To examine the possible link, researchers from Mayo Clinic and Olmsted Medical Center in Rochester, Minn., performed a retrospective cohort study and enrolled asthmatics and age- and gender-matched non-asthmatics from Rochester residents between 1964 and 1983.

During the study period, a total of 2,392 asthmatic subjects and 4,784 subjects without asthma were enrolled, of which 57% were male and 98% were Caucasian. Researchers calculated age and gender-adjusted incidence rates of inflammatory bowel syndrome, rheumatoid arthritis, diabetes and coronary artery disease by using medical index codes.

When comparing the age- and gender-adjusted incidence of these conditions between individuals with and without asthma, the researchers found that asthma was associated with increased risks of developing diabetes and heart disease but not inflammatory bowel syndrome and rheumatoid arthritis. The incidence rate of diabetes in non-asthmatics was 104 per 100,000 people compared

¹ Akinbami LJ, Moorman JE, Liu X. Asthma prevalence, health care use, and mortality: United States, 2005–2009. National health statistics reports; no 32. Hyattsville, MD: National Center for Health Statistics. 2011.

to 138.4 per 100,000 people in asthmatics. For heart disease, the incidence rate in non-asthmatics was 134 per 100,000 people versus 188.6 per 100,000 in asthmatics.

“While it’s important for clinicians to be aware of the increased risks of coronary artery disease and diabetes in asthmatics, these findings should be interpreted cautiously given the preliminary nature,” emphasized Juhn. “Given the significant proportion of people affected by asthma, we need to continue to carefully monitor the potential impact of asthma epidemiology on the epidemiology of other chronic diseases.”

The AAAAI represents allergists, asthma specialists, clinical immunologists, allied health professionals and others with a special interest in the research and treatment of allergic disease. Established in 1943, the AAAAI has more than 6,500 members in the United States, Canada and 60 other countries. Visit www.aaaai.org for more resources and expert advice from allergists.

Editor's notes:

- *This study was presented during the 2011 Annual Meeting of the American Academy of Allergy, Asthma & Immunology (AAAAI) on March 18-22 in San Francisco. However, it does not necessarily reflect the policies or the opinions of the AAAAI.*
- *A link to all abstracts presented at the Annual Meeting is available at www.annualmeeting.aaaai.org*