

## **People With GERD More Likely to Develop Asthma**

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FRIDAY, July 25 (HealthDay News) -- The first evidence linking gastroesophageal reflux disease (GERD) and asthma has been discovered by Duke University Medical Center researchers.

An association between the two conditions was first noted in the 1970s, and since then studies have shown that between 50 percent and 90 percent of asthma patients also experience GERD symptoms. But the actual link between GERD and asthma hasn't been clear.

In experiments with mice, the Duke team found that inhaling tiny amounts of stomach fluid that back up into the esophagus -- a hallmark of GERD -- can cause immune system changes that lead to asthma.

The researchers placed miniscule amounts of gastric fluid into the lungs of mice over an eight-week period. When exposed to allergens, the immune systems of these mice responded differently than those of mice that didn't have gastric fluid in their lungs.

The mice with gastric fluid in their lungs developed what's known as a T-helper type 2 response, a type of immune system reaction characteristic of asthma. The other mice had a more balanced immune system reaction consisting of both T-helper type 1 and T-helper type 2 responses.

The study was published in the current issue of the European Journal of Clinical Investigation.

"This is the first experimental evidence in a controlled, laboratory setting linking these two very common conditions in humans. These data suggest that chronic micro-aspiration of gastric fluid can drive the immune system toward an asthmatic response," senior author Dr. Shu Lin, an assistant professor of surgery and immunology, said in a Duke University news release.

"This does not mean that everyone with GERD is going to develop asthma, by any means," noted study co-author William Parker, an assistant professor of surgery. "But it may mean that people with GERD may be more likely to develop asthma. If there is an upside to this, it is that developing GERD is something we can pretty much treat and control."

Poor diet, lack of exercise and obesity all contribute to GERD.

"People should avoid the risk factors for GERD. We strongly believe that the rise in asthma, particularly among adults in the country, is in large measure due to lifestyle choices that can be changed," Parker said.

More research is needed to fully understand the relationship between GERD and asthma, but this study does offer new directions for developing more treatment options for both conditions, the researchers said.

As for people who already have GERD, Lin says they can minimize gastric reflux and reduce their risk of developing asthma by following a few simple steps: Eat smaller meals and eat several hours before going to bed; raise the head of the bed a few inches; and limit consumption of fatty foods, caffeine and alcohol, all of which can relax the esophageal sphincter and increase the likelihood of reflux.