

In Search of the Deep Breath Chemical

The biochemistry of breathing deeply, the one thing an asthmatic cannot do in the midst of the attack, may hold a key to helping doctors treat people who have asthma.

A recent study suggests that the mere act of breathing deeply may stretch lung tissue and cause the release of a protective chemical that keeps the airways open. Writing in the *Journal of Applied Physiology*, researchers from Johns Hopkins University said that if the chemical could be identified, it could possibly be the basis of an asthma drug. The researchers came to the conclusion after studies involving the drug methacholine, which narrows airways and causes wheezing in people with asthma. In healthy people, the drug has no effect, unless they take a series of shallow breaths before taking it, early studies show. This time, asthmatic and healthy volunteers were asked to breathe deeply before being given the drug. While the deep breaths did not help the people with asthma, they did reduce the adverse effects of the drug by 85 percent in healthy people, the study said.