Researchers Show Impact of Insomnia and Depression on Asthma Control

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DENVER—Researchers at National Jewish Health have shown that underlying mood and sleep disorders negatively impact asthma control. Data reveal a considerable interaction between insomnia, depression and obstructive sleep apnea in people with asthma. The study was recently published in the Journal of Asthma.

“Asthma control, sleep quality and mood are all critical factors in affecting an individual's overall quality of life, and our study suggests a strong relationship among all three areas,” said Michael Wechsler, MD, pulmonologist, Professor of Medicine, Director of The Cohen Family Asthma Institute at National Jewish Health and senior author of the paper. “Individuals with asthma should be regularly screened for sleep quality as well as for co-existing mood disorder.”

For the study, investigators conducted a retrospective chart review of 659 adult patients enrolled in a long-term study at National Jewish Health. Asthma patients were evaluated based on the presence of concurrent obstructive sleep disorder, mood disorders, asthma exacerbation frequency and asthma control test scores (ACT). The research demonstrated a significant increase in the presence of mood disorders among asthmatics with insomnia when compared to those who did not suffer from disturbed sleep.

Poor sleep quality is often associated with asthma, particularly for those who have poor asthma control overall. Insomnia also frequently overlaps with depression. Previous research has examined the relationship between sleep issues and asthma control. However, the interaction between these conditions and mood disorders had not been well studied.
In reviewing the data, researchers found that, compared to patients without insomnia, those with insomnia were more likely to have a concurrent diagnosis of obstructive sleep apnea, along with a diagnosis of depression or anxiety. Among insomnia patients there was a higher average of asthma exacerbations per year compared to those without insomnia.

“It is important for us as physicians to treat asthma comorbidities like sleep and mood disorders similarly to what we do with other conditions that impact asthma management, such as reflux, sinus disease and vocal cord dysfunction,” said Dr. Wechsler.

Additional research is needed to better understand the mechanisms behind the interactions between asthma, sleep and depression. That understanding may lead to guidelines for screening and management of sleep and mental health disorders in asthma sufferers.

**National Jewish Health** is the leading respiratory hospital in the nation. Founded 125 years ago as a nonprofit hospital, National Jewish Health today is the only facility in the world dedicated exclusively to groundbreaking medical research and treatment of children and adults with respiratory, cardiac, immune and related disorders. Patients and families come to National Jewish Health from around the world to receive cutting-edge, comprehensive, coordinated care. To learn more, visit the [media resources](#) page.

**Media Resources**

We have many faculty members, from bench scientists to clinicians, who can speak on almost any aspect of respiratory, immune, cardiac and gastrointestinal disease as well as lung cancer and basic immunology.

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