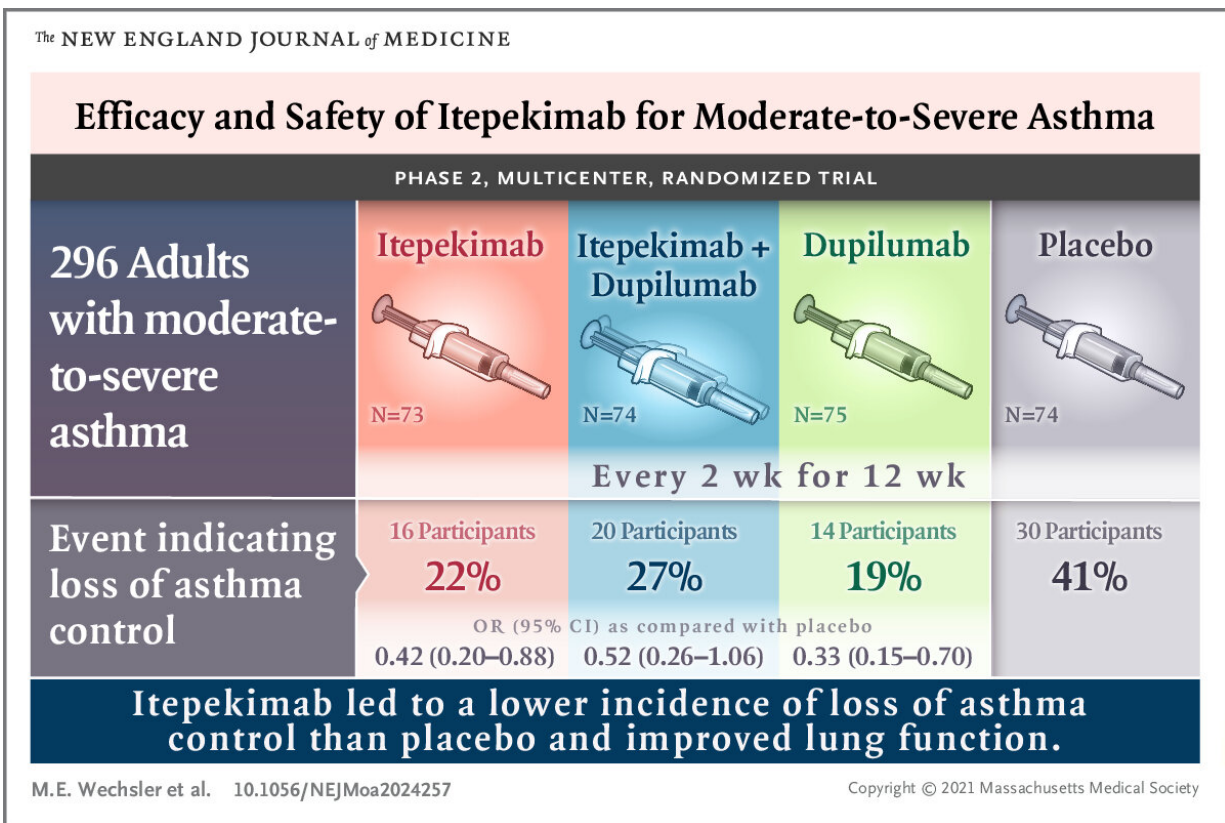


# New monoclonal antibody shows promise for severe asthma

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A new monoclonal antibody therapy shows promise in offering an alternative treatment for patients suffering from moderate-to-severe asthma. Research led by Michael E. Wechsler, MD, MMSc, director of

the National Jewish Health Cohen Family Asthma Institute, found that itepekimab was safe and effective in a phase 2 trial published online today in the *New England Journal of Medicine*.

Asthma is a [chronic lung condition](#) characterized by airway narrowing and inflammation, as well as increased airways sensitivity to a variety of stimuli. In the United States, about 10% of the 30 million people with asthma suffer from [severe asthma](#), in which the condition is poorly controlled even with the use of traditional therapies, like corticosteroids.

"Severe asthma is a big problem globally, and we are always looking for new strategies for patients who don't respond to currently available therapies," said Dr. Wechsler. "We have targeted a new pathway that may potentially interrupt the inflammatory cascade and improve care in asthma patients."

Currently, several [monoclonal antibodies](#), such as dupilumab, mepolizumab and benralizumab, have been approved to target cytokine proteins like interleukin-4, interleukin-5 and interleukin-13, and these drugs are known to be effective in treating severe type 2 asthma. However, new targeted therapies are needed.

Itepekimab is a novel monoclonal antibody designed to target interleukin-33. The international research team investigated the efficacy of itepekimab on its own and in combination with dupilumab in a multicenter, randomized, double-blind, placebo-controlled trial at 70 sites. Study participants were between the ages of 18 and 70 years old, suffered from moderate-to-severe asthma and received inhaled glucocorticoids, as well as plus long-acting beta-agonists (LABAs).

Subjects were divided into four groups that received either subcutaneous doses of itepekimab, dupilumab, a combination of both, or a placebo, every two weeks for 12 weeks. By the end, an event indicating a loss of

asthma control occurred in 22% of the patients in the itepekimab group versus 41% of those in the placebo group, 27% of those in the combination group, and 19% of those in the dupilumab group. Itepekimab also significantly improved lung function.

"This study gives us insight into the pathophysiology of asthma and gives hope for a new therapeutic option for patients suffering from severe [asthma](#)," said Dr. Wechsler. "We look forward to moving this [research](#) forward to help patients breathe as well as possible. We still need to ascertain which patients are most likely to respond to this novel [therapy](#)."

**More information:** Michael E. Wechsler et al, Efficacy and Safety of Itepekimab in Patients with Moderate-to-Severe Asthma, *New England Journal of Medicine* (2021). [DOI: 10.1056/NEJMoa2024257](https://doi.org/10.1056/NEJMoa2024257)

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