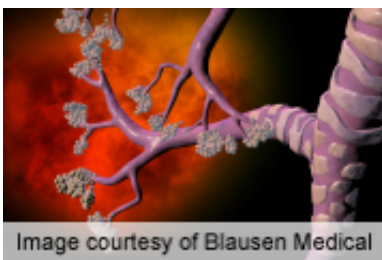


# Obese asthma patients have reduced treatment response

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Compared with lean patients, obese patients with asthma have higher neutrophil counts and a reduced response to corticosteroid treatment, according to a study published online June 12 in *Allergy*.

(HealthDay) -- Compared with lean patients, obese patients with asthma have higher neutrophil counts and a reduced response to corticosteroid treatment, according to a study published online June 12 in *Allergy*.

Eef D. Telenga, M.D., of the University of Groningen in the Netherlands, and colleagues conducted a study involving 63 obese and 213 lean asthma patients from four cohorts to determine whether severe [airway obstruction](#) and airway hyper-responsiveness differs between the groups. They also examined the influence of obesity on the response to corticosteroid treatment in 118 patients.

The researchers found that, at baseline, asthma severity was comparable between the groups. Significantly higher blood neutrophil counts were

seen in obese patients, specifically in obese women, but not obese men. Compared with lean patients, obese patients demonstrated significantly less corticosteroid-induced improvement in forced expiratory volume in 1 second after a two-week treatment period with corticosteroids (median 1.7 versus 6.3 percent). There was a significantly lower improvement in the percentage of sputum [eosinophils](#) with increased [body mass index](#) and a smaller improvement in blood neutrophil counts in obese versus lean patients.

"The results of our study show that obese asthma patients have a distinct phenotype of asthma that is characterized by a higher level of neutrophilic inflammation in sputum and blood. Especially, obese female asthma [patients] show this increased neutrophilic inflammation," the authors write. "The increased neutrophilic inflammation may help to explain why obese [asthma patients](#) respond less to corticosteroid treatment."

Several authors disclosed [financial ties](#) to pharmaceutical companies, including GlaxoSmithKline, which funded two of the cohorts in this study.

[Abstract](#)

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