

# Increasing BMI causally linked to asthma, not hay fever

July 10 2017

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(HealthDay)—There is a causal relationship between increasing body

mass index (BMI) and asthma and decreased lung function, according to a study published online July 4 in *Allergy*.

Tea Skaaby, Ph.D., from the Center for Health in Denmark, and colleagues examined the causal effect of BMI on asthma, [hay fever](#), and [allergic sensitization](#). Data were included for 490,497 and 162,124 participants in observational and genetic analyses, respectively. Using 26 BMI-associated single nucleotide polymorphisms, the authors created a genetic risk score (GRS).

The researchers found that per BMI-increasing allele there was a significantly correlation for GRS with asthma (odds ratio, 1.009; 95 percent confidence interval, 1.004 to 1.013), but not with hay fever (odds ratio, 0.998; 95 percent confidence interval, 0.994 to 1.002) or with allergic sensitization (odds ratio, 0.999; 95 percent confidence interval, 0.986 to 1.012). There was a significant correlation for GRS with decrease in forced expiratory volume in one second ( $\beta = -0.0012$ ; 95 percent confidence interval,  $-0.0019$  to  $-0.0006$ ) and in forced vital capacity ( $\beta = -0.0022$ ; 95 percent confidence interval,  $-0.0031$  to  $-0.0014$ ) per BMI-increasing allele.

"The results support the conclusion that increasing BMI is causally related to higher prevalence of asthma and decreased [lung function](#), but not with hay fever or biomarkers of allergy," the authors write.

One institution was partially funded by a donation from the Novo Nordisk Foundation.

**More information:** [Abstract](#)  
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