

Higher BMI linked to improved lung function in cystic fibrosis

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For patients with cystic fibrosis (CF), overweight and obesity are

associated with higher forced expiratory volume in the first second of expiration compared with normal weight, according to a meta-analysis published online March 7 in *JAMA Network Open*.

Rita Nagy, M.D., from the University of Pécs in Hungary, and colleagues conducted a systematic review and [meta-analysis](#) to examine the association between altered body mass index (BMI) or body composition and clinical outcomes in patients with CF. Sixty-one records were included in the qualitative analysis and 17 of these were included in the quantitative synthesis. The [systematic review](#) and meta-analysis included a total of 9,114 patients.

The researchers found that compared with [normal weight](#), overweight and obesity were associated with higher forced expiratory volume in the first second of expiration (weighted mean differences, -8.36 and -12.06 percent, respectively). Patients with normal weight had increased odds for CF-related diabetes and exocrine pancreatic insufficiency compared with those who were overweight (odds ratios, 1.49 and 4.40, respectively). In the analysis of pulmonary function, high heterogeneity was seen.

"The association between higher BMI and improved lung function warrants careful consideration toward optimal targets of BMI in CF," write the authors of an accompanying editorial. "Further [longitudinal studies](#) to address the consequences associated with overweight status in patients with CF to optimize nutritional approaches and treatment plans will be required to help guide further clinical recommendations."

More information: Rita Nagy et al, Association of Body Mass Index With Clinical Outcomes in Patients With Cystic Fibrosis, *JAMA Network Open* (2022). [DOI: 10.1001/jamanetworkopen.2022.0740](https://doi.org/10.1001/jamanetworkopen.2022.0740)

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