

# Acetazolamide helps treat volume overload in heart failure

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For patients with acute decompensated heart failure, the addition of

acetazolamide to loop diuretic therapy yields an increased incidence of successful decongestion, according to a study published online Aug. 27 in the *New England Journal of Medicine* to coincide with the European Society of Cardiology Congress 2022, held from Aug. 26 to 29 in Barcelona, Spain.

Wilfried Mullens, M.D., Ph.D., from Ziekenhuis Oost-Limburg in Genk, Belgium, and colleagues conducted a parallel-group, double-blind, randomized, placebo-controlled trial involving patients with [acute decompensated heart failure](#), clinical signs of volume overload, and an N-terminal pro-B-type natriuretic peptide level of more than 1,000 pg/mL or a B-type natriuretic peptide level of more than 250 pg/mL. Five hundred nineteen participants were randomly assigned to intravenous acetazolamide or placebo added to standard loop diuretics.

The researchers found that successful decongestion occurred in 42.2 percent of 256 patients in the acetazolamide group and in 30.5 percent of 259 patients in the [placebo group](#) (risk ratio, 1.46; 95 percent confidence interval, 1.17 to 1.82; P heart failure occurred in 29.7 and 27.8 percent of patients in the acetazolamide and placebo groups, respectively (hazard ratio, 1.07; 95 percent confidence interval, 0.78 to 1.48). Higher cumulative urine output and natriuresis were seen in association with acetazolamide treatment, which was consistent with better diuretic efficiency.

"These data suggest the use of acetazolamide as a reasonable adjunct to achieving more rapid decongestion," writes the author of an accompanying editorial.

**More information:** Wilfried Mullens et al, Acetazolamide in Acute Decompensated Heart Failure with Volume Overload, *New England Journal of Medicine* (2022). [DOI: 10.1056/NEJMoa2203094](https://doi.org/10.1056/NEJMoa2203094)

G. Michael Felker, New Decongestion Strategies in an Evolving Heart Failure Landscape, *New England Journal of Medicine* (2022). [DOI: 10.1056/NEJMe2209997](https://doi.org/10.1056/NEJMe2209997)

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