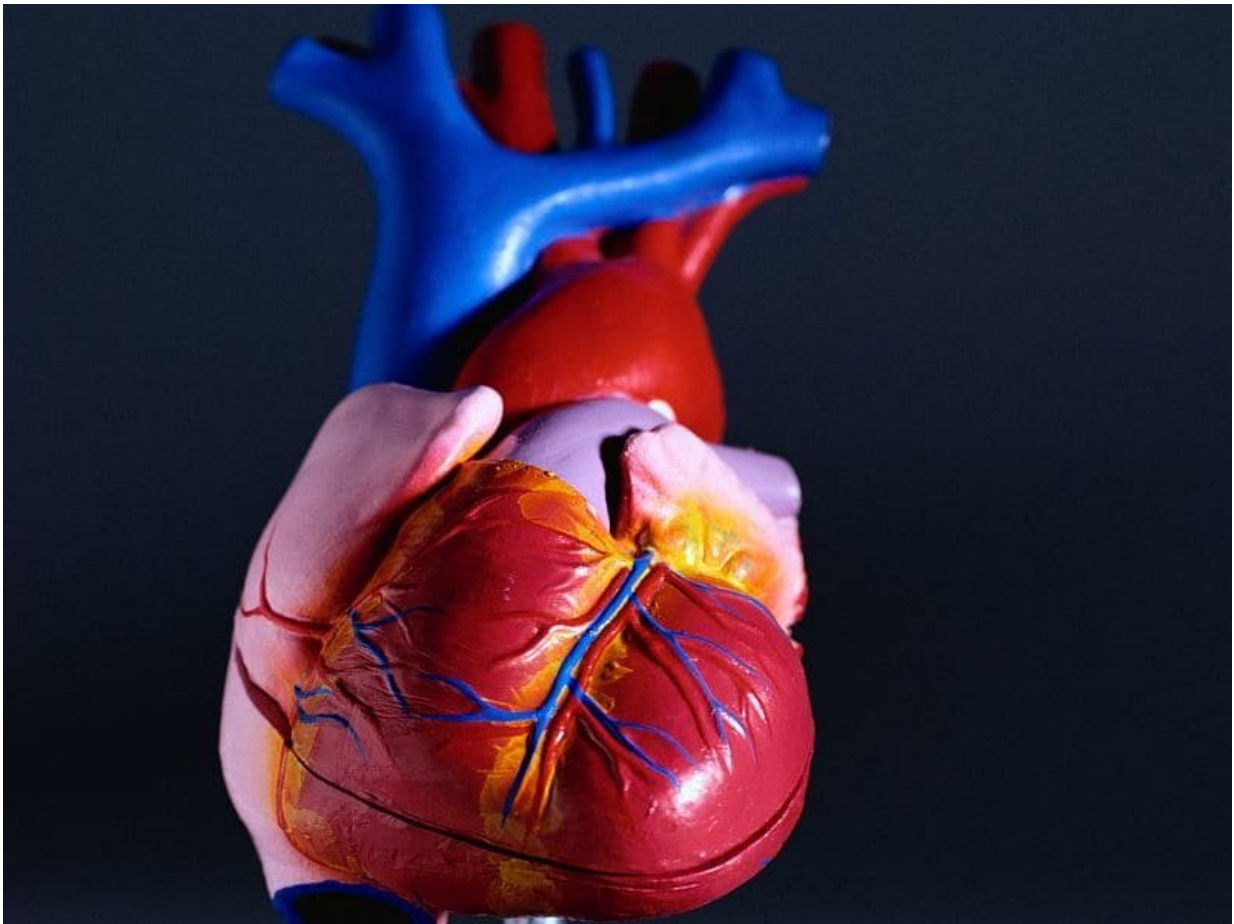


# Inhaled nitrite does not improve exercise capacity in HFpEF

November 7 2018

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(HealthDay)—Administration of inhaled nitrite is not associated with

improvement in exercise capacity compared with placebo among patients with heart failure with preserved ejection fraction (HFpEF), according to a study published in the Nov. 6 issue of the *Journal of the American Medical Association*.

Barry A. Borlaug, M.D., from the Mayo Clinic in Rochester, Minnesota, and colleagues conducted a multicenter, two-treatment crossover trial involving 105 patients with HFpEF. Participants were randomly assigned to four weeks of inorganic nitrite or placebo administered via a micronebulizer device followed by a two-week washout period with no study drug for each six-week phase of the crossover study.

The researchers observed no significant difference in mean peak oxygen consumption in the nitrite phase versus the placebo phase (13.5 versus 13.7 mL/kg/min;  $P = 0.27$ ). No significant between-treatment phase differences were observed in daily activity levels (5,497 versus 5,503 accelerometry units;  $P = 0.91$ ), Kansas City Cardiomyopathy Questionnaire Clinical Summary Score (62.6 versus 61.9;  $P = 0.39$ ), functional class (2.5 versus 2.5;  $P = 0.43$ ), echocardiographic E/e' ratio (16.4 versus 16.6;  $P = 0.93$ ), or N-terminal fragment of the prohormone brain natriuretic peptide levels (520 versus 533 pg/mL;  $P = 0.74$ ). Worsening [heart failure](#) occurred in 2.9 and 7.6 percent of participants during the nitrite phase and placebo [phase](#), respectively.

"These results are in contrast to multiple earlier studies suggesting administration of inorganic [nitrite](#) or nitrate may have benefits in HFpEF," the authors write.

Several authors disclosed financial ties to the pharmaceutical and medical device industries.

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