

# COPD patients at significantly higher risk of heart failure

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As if increased risks of high blood pressure, respiratory infections, lung cancer and even depression weren't enough, researchers say patients with chronic obstructive pulmonary disease (COPD) have another complication to worry about: heart failure. That's according to a new study from the Morehouse School of Medicine in Atlanta, which found the prevalence of heart failure is significantly higher in patients with COPD compared to the rest of the study population. They also found that the risk was especially high among African-American patients with COPD.

The study's findings were presented at the ATS 2014 International Conference.

"The relationship between COPD and [coronary heart disease](#) has been well studied, but substantially less information exists concerning the coexistence of COPD and [heart failure](#)," said lead author Srinadh Annangi, MBBS. "For our study, we analyzed [hospital discharge data](#) from the National Hospital Discharge Survey (NHDS) to investigate the frequency and impact of heart failure on hospitalizations for subjects with COPD."

The researchers reviewed 386,186,183 [hospital discharge](#) records from 2001 through 2010 and identified 33,338,505 patients aged 40 years and over who had COPD. Those records were further analyzed to identify patients who also had heart failure, and then stratified by race and age.

After analysis, they found that 28.7% of COPD patients had heart failure, compared to 13.0% in the background population. Looking at race, the researchers reported the following findings:

- 28.3% of European Americans with COPD had heart failure compared to 12.9% of the non-COPD European American population;
- 35.1% of African Americans with COPD had heart failure compared to 15.2% of the non-COPD African American population; and
- 25.3% of COPD patients from other populations had heart failure compared to 11.3% in their counterparts who did not have COPD.
- In cases where race was not reported, 28.1% of COPD patients had heart failure compared to 13.6% of those who did not have COPD.

With regard to age, they found:

- For patients from 40 to 59 years of age, 18.0% of patients with COPD also had heart failure compared to 5.4% of patients without COPD;
- For patients from 60 to 79 years of age, 27.5% of COPD patients had heart disease compared to 13.6% without COPD; and
- Among patients aged 80 years and older, heart failure was present in 38.6% of those with COPD and 24.4% of those who did not have COPD.

The researchers also found that patients with both COPD and heart failure had longer average hospital stays, higher in-hospital mortality rates and were discharged to long-term care facilities more often than patients with COPD alone.

"The co-existence of COPD and heart failure, which share common symptoms, may pose diagnostic and therapeutic challenges," said study corresponding author Marilyn G. Foreman, M.D., M.S. "The long-term effect of both diagnoses over time remains to be determined."

"As the prevalence of COPD gains traction in individuals of low socioeconomic status, the impact of simultaneous co-morbid diagnoses over decades of life could pose substantial fiscal, therapeutic, and social challenges," she added.

**More information:** Chronic Obstructive Pulmonary Disease And Heart Failure - A Decade Analysis Of The National Hospital Discharge Survey, Scientific Abstract, 09.03 - COPD: Comorbidities (CP), by S. Annangi, M.G. Foreman, E.L. Flenaugh; Morehouse School of Medicine - Atlanta, GA/US

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