



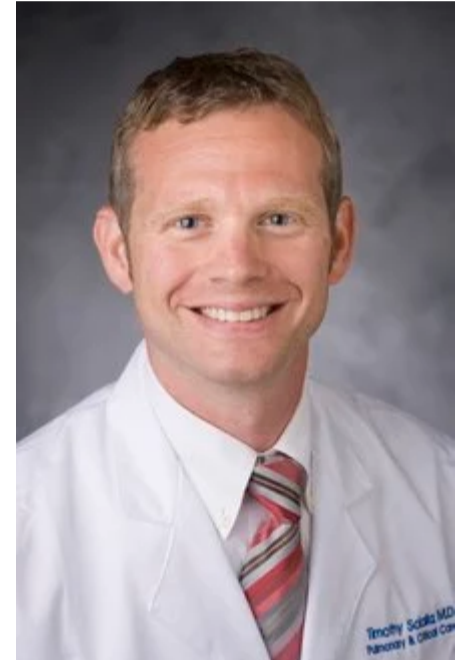
Top Barriers to Effective COPD Treatment

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Progress in treating chronic obstructive pulmonary disease (COPD) is stymied by many factors. Here are the most problematic.



Scialla

Progress in treating chronic obstructive pulmonary disease (COPD) is stymied by many factors, including the nature of the ailment itself.

"COPD is a very complex condition," says Timothy J. Scialla, MD, pulmonologist at Duke University's Duke Asthma Allergy and Airway in Durham, North Carolina. "Not every person with COPD has the same underlying mechanism driving their disease. Nor does each patient have the same damage."

Here are some of the biggest barriers to effective COPD treatment:

- **Current medications have limited effects**

Drugs for the disease may improve shortness of breath and thwart acute exacerbations, but none have been shown to slow or reverse lung damage, and existing treatments relieve some symptoms-not all, Scialla says.

For simplicity, patients often can be divided into two groups: those whose troubles are mostly with the airways and those whose issues are with the air sacs. Of course, some patients will have both problems.

"The easiest way to explain is to think of grape plants. The airways are the stems, while the air sacs are the grapes," Scialla says.

Chronic bronchitis produces excess mucus, which leads to constant coughing that inflames and narrows airways. Bronchodilators open airways, but no drugs specifically target mucus production.

Emphysema strikes the air sacs, or small air chambers-known as alveoli-in the lungs.

"We don't have a good way to reverse damage to those air sacs and the resulting emphysema," Scialla says.

Research addressing these issues is underway-but there are no current approved medications.

2. **Cost of care is prohibitive for many patients**

Total healthcare costs of COPD patients are \$20,500 higher than for those without the disease, to "[The Economic Burden of COPD in a U.S. Medicare Population](#)," a 2008 study in the *Journal of Respiratory Medicine*.

That burden includes expensive drugs and \$300 to \$400 monthly for inhalers and bronchodilators. , no generic versions of these drugs exist, according to Scialla.

When patients cannot pay for their medications, they're less likely to take them. As few as 40% of COPD patients take drugs as prescribed, according to "[Medication Adherence Issues in Patients Treated for COPD](#)," a study in *International Journal of COPD*.

Lack of adherence leads to acute exacerbations of the disease, which in turn require costly hospitalizations.



The bottom line: Healthcare providers may end up covering that expense, Scialla says. "We need generics, just as there exist for medications that treat hypertension for as little as \$4."

3. Depression, mental health disorders, and provider distrust lower patient compliance

COPD patients are less likely to use prescribed maintenance medications if they also smoke, have mental health disorders, or lack confidence in their healthcare provider, according to an Italian study "[Adherence to COPD Treatment: Myth and Reality](#)," reported in *Respiratory Medicine Journal* last year.

The study found patients are more likely to follow therapy if clinicians encourage caregiver participation, match dosing intervals with patient lifestyle, and ask about each drug separately at medical appointments.

4. Research hasn't adequately explored care customized to patient profiles

Studies need to address phenotypes-the merger of genes and environment-since the way they combine alters the traits of the disease in individuals, Scialla says.

"The future lies in personalized medicine. We need to be able to say individuals with certain characteristics will respond better to a certain medication than those without those characteristics."

5. Not enough patients are participating in key clinical trials

The National Institutes of Health is funding three valuable studies that may revolutionize COPD care in the future, according to Scialla-but these studies still need participants.

They are:

- LEEP: Losartan Effects on Emphysema Progression. This randomized clinical trial evaluates whether [anti-hypertensive drug Losartan \(Cozaar\)](#) will slow the progression of COPD-related emphysema. Participants should be smokers and former smokers 40 or older.
- RETHINC: [REdefining Therapy IN early COPD](#). This study seeks to determine whether bronchodilators will help symptomatic smokers and ex-smokers with normal lung function.
- INSIGHT COPD ([INtervention Study IN overweiGHT patients with COPD](#)). Researchers are looking at whether modest weight loss and increased activity will improve shortness of breath in overweight patients. Those eligible are age 40 and above with a history of smoking and a BMI of 25.0 and above.

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April 29, 2021

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Well-being Tips for Parents per Maven VP of People Karsten Vagner

