

What are asthma and COPD?

Asthma is a lung disease characterized by long-term (*chronic*) inflammation of the airways. During asthma "attacks," the airways in the lungs contract and narrow, causing shortness of breath, wheezing, chest tightness, and coughing. Asthma usually starts in childhood, but can affect people of all ages. About 34 million Americans have asthma, and it is 20% more common in women than in men.

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Chronic obstructive pulmonary disease, or COPD, is another type of lung disease that makes it harder to breathe. It is caused by inflammation of the large airways (*chronic bronchitis*) and damage to tiny air sacs in the lungs (*emphysema*). Unlike asthma, narrowing of the airways in COPD is permanent and usually gets worse over time. COPD affects 16 million Americans, and kills more women than men each year.

How are asthma and COPD related to heart failure?

Heart and lung disease are often linked. Together, the heart and lungs work to supply your body with oxygen. Problems with either (or both) of these systems produce symptoms caused by your body not getting enough oxygen, such as shortness of breath and tiredness.

In women who have [heart failure](#), lung disease can make the heart's job even harder. Likewise, if a failing heart is not pumping enough blood to the lungs, their job becomes more difficult.

How can I tell if my shortness of breath is caused by heart failure, and not by asthma or COPD?

Shortness of breath and chest congestion (persistent cough) are two of the main [symptoms of heart failure](#).

yet these same symptoms can also be caused by lung disease. Women with asthma or COPD often have shortness of breath that they assume is due to their condition, but it could also be a sign that they are developing heart failure.

See your doctor if you have shortness of breath that happens more often or is more severe than usual. This could be a sign of heart problems (especially if you have other symptoms of heart failure) or indicate that your asthma or COPD is getting worse. Your doctor will order tests to determine if your breathlessness is caused by your heart, your lungs, or both.

Are there special concerns for women being treated for heart failure who also have asthma or COPD?

Because heart failure and lung disease often occur together, doctors have to be particularly careful that medications they are using to treat one condition are not making the other condition worse. In treating women with heart failure who also have lung disease, concerns about two major types of medications have arisen: [ACE inhibitors](#) and [beta blockers](#) .

ACE Inhibitors

Angiotensin converting enzyme (ACE) inhibitors are a class of medications used to treat high blood pressure and heart failure. They are one of the first medications used in the treatment of women with [systolic heart failure](#) , whether or not they have started experiencing symptoms. A common side effect of ACE inhibitors is a dry cough, which occurs in 5% to 20% of patients and is more common in women than in men. ²

Telling the difference between the dry cough that is caused by ACE inhibitors and a cough caused by asthma or COPD can be difficult. It is important to diagnose the cause of a cough in patients who are taking ACE inhibitors to avoid stopping the treatment unnecessarily.

If you develop a dry, nonproductive cough while taking ACE inhibitors, your doctor will examine you closely to determine if lung disease or respiratory infection could be the cause. If she or he believes it is related to the medication, you may be asked to stop taking the ACE inhibitor for a

brief period and then start taking it again. If the cough goes away after you stop taking the drug and comes back when you start again, it is very likely the medication was responsible for your symptoms. If this is the case, you and your doctor will decide whether you want to try living with the side effects of the drug or switch to an alternate treatment.

Learn more: [ACE Inhibitors in Heart Failure](#)

Beta Blockers

Beta-blockers are a class of medications used to treat high blood pressure and heart failure. They are also given to women who have had a [heart attack](#) to prevent future heart problems. Beta-blockers are one of the first medications given to a woman with systolic heart failure, even if she has not started having heart failure symptoms yet.

In some women with asthma or COPD, certain beta blockers (*metoprolol, bisoprolol*) can worsen breathing problems.

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However, most patients with lung disease do not have airways that are sensitive enough to be affected by the other available beta-blocker drugs, and in general patients with lung disease tolerate beta-blockers as well as patients without lung disease.

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If you have asthma or COPD and you have been prescribed beta blockers, be sure to notify your doctor if your symptoms get worse. She or he may refer you for tests to determine the cause. If it seems likely the beta blockers are making your lung disease symptoms worse, you and your doctor will need to decide if the negative side effects outweigh the benefits beta blockers have in treating heart failure.

Learn More: [Beta Blockers in Heart Failure](#)

For More Information:

NHLBI Information on COPD

http://www.nlm.nih.gov/health/dci/Diseases/Copd/Copd_WhatIs.html

NHLBI Information on Asthma

http://www.nlm.nih.gov/health/dci/Diseases/Asthma/Asthma_WhatIs.html

References

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