Can COPD Cause Pulmonary Hypertension?

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COPD and Pulmonary Hypertension

Ever since you've been going to the doctor, likely a nurse has slapped a sphygmomanometer on your arm. She's pumped the cuff up to an unbearable amount of pressure before slowly releasing it, and then matter-of-factly stated your blood pressure: "One-forty-over-eighty-two."

Knowing your blood pressure is important – but if you have COPD, there may be a connection between hypertension and COPD.

Can COPD Raise Blood Pressure?

According to the *Lung Institute,* the actual nature of COPD can cause hypertension. As you, dear readers can agree, COPD causes the lungs to work in overdrive. The lungs are damaged, and this damage causes a reduction in oxygenated blood. Due to a reduction in oxygenated blood, high blood pressure occurs, which makes it even harder for the heart to pump blood to the body.

When COPD and hypertension coexist, they typically cause the person suffering from breathing even faster in order to take in more oxygen. It is of the utmost importance for these people to control *both* of their conditions.

COPD and Pulmonary Hypertension Symptoms

Much like hypertension that occurs *without* COPD, hypertension rarely has symptoms. Which means, unfortunately, that unless you follow up with your provider, you may not know that you have hypertension in the first place!

According to the American Heart Association, "High blood pressure is a largely symptomless 'silent killer.' If you ignore your blood pressure because you think a particular symptom or sign will alert you to the problem, you are taking a dangerous chance with your life."

On rare occasions, blood spots in the eyes, facial flushing, and dizziness may occur. These can happen in response blood pressure changes, or as a side effect of a medication. However, they are more likely to be related to another health concern than related to blood pressure.

COPD and Hypertension Blood Pressure Targets

In 2013, the blood pressure targets were updated, and they are as follows:

- For adults with diabetes and chronic kidney disease, blood pressure should be under 140/90.
- For adults ages 30 to 59, blood pressure should be under 140/90.
- For adults over 60 with high blood pressure, blood pressure should be under 150/90.

COPD and Hypertension Treatment

First, we need to note that COPD should be treated effectively. Finding the right medications can be difficult, but it is important to do so. Getting COPD symptoms under control can, by extension, reduce blood pressure.

Now, how is hypertension that associated with COPD treated?

Much the same way that hypertension, in general, is treated!

- **Thiazide diuretics** are often the initial treatment for uncomplicated hypertension. This is the result of a multitude of research studied. However, multiple studies also indicate that people with COPD may require two antihypertensive drugs. An example of a thiazide diuretic is hydrochlorothiazide.
- **Loop diuretics** can be used in patients with normal renal function, but they have a lesser antihypertensive effect than thiazide diuretics. However, they are helpful for COPD patients who have excess fluid that needs to be removed (as the diuretic is powerful at eliminating fluid). Examples of loop diuretics include furosemide (Lasix) and bumetanide (Bumex).

- **Aldosterone receptor blockers** are not typically a first drug that is utilized to treat hypertension but is useful as an add-on agent for resistant hypertension. They are helpful when a patient has COPD as well as heart failure. An example is a spironolactone (Aldactone).
- **Beta blockers** can be a bit confusing to some practitioners – their effect on the lungs can cause bronchoconstriction in certain individuals. However, new research indicates that "in patients with COPD, single-dose or long-term treatment with selective beta blockers did not have a significant effect on forced expiratory volume in 1 second (FEV1), beta-agonist response, inhaler use, or respiratory symptoms. Even in patients with COPD who had reactive airway disease, the use of selective beta blockers was only associated with a small decrease in FEV1 and a similarly small increase in beta-agonist response with the first dose, both of which normalized with continued treatment." Examples of beta blockers include metoprolol (Lopressor) and carvedilol (Coreg).

And this is just a selection of blood pressure drug classes that can be used to treat hypertension – there is plenty of medications that can be used to reduce blood pressure!

The Bottom Line…

Yes, hypertension and COPD do often coexist. However, knowing *why* is important. Seeking treatment is part of the battle – as is continually following up to ensure that your blood pressure is controlled.