How Diabetes Affects Your Lungs

Your feet. Your heart. Your kidneys. When you think of the body parts affected by diabetes, these are the ones that likely come to mind. But diabetes also affects another part of your body. And it's one you use every second of your life: your lungs. If you have diabetes, you are more likely to have certain lung conditions. Diabetes also has an impact on lung function, or how well you breathe.

Lung Conditions

A study published in *Diabetes Care* compared the health records of more than 1.8 million California residents with and without diabetes. The research found that adults with either type 1 or type 2 diabetes are:

- 8% more likely to have asthma
- 22% more likely to have chronic obstructive pulmonary disease (COPD)
- 54% more likely to have pulmonary fibrosis, a disease in which scarring in the lungs interferes with your ability to breathe
- Nearly twice as likely to have been hospitalized for pneumonia

Lung Function

If you have type 2 diabetes, you have decreased lung function compared with people who don't have diabetes. Lung function is a measure of how well you're breathing. It also refers to how well your lungs deliver oxygen to your body. If you have type 2 diabetes, you tend to have 3% to 10% lower lung volumes than adults who do not have the disease.

Generally, reduced lung function won't interfere with your daily life. However, it could cause issues if you are obese, smoke, or have lung disease. Poor lung function can also be a problem if you have heart failure or kidney failure, two diabetes complications.

Having diabetes doesn't necessarily mean you have bad lung function. Some studies show that lung function gets worse as blood glucose levels increase. The longer you've lived with diabetes, the worse your lung function may be.

In some studies, people who developed diabetes had low lung function to begin with. This has led some experts to wonder if poor lung health might contribute to diabetes. However, this idea hasn't been proven.

Why Diabetes Hurts Your Lung Function

Scientists aren't sure exactly why diabetes and lung function are related. Some experts say inflammation is to blame. Diabetes may cause inflammation in your body. If you have diabetes, you have higher levels of inflammatory compounds, such as C-reactive protein. A study in *Diabetes Care* found that high markers of inflammation were linked to low lung function.

Obesity also may be part of the explanation. In the same *Diabetes Care* study, obese people had lower lung function and higher rates of diabetes versus healthy-weight people. Obesity-related inflammation may be the cause, says a study in the journal *Lung.*

A Note About Smoking

If you have diabetes, smoking harms more than your lungs. Smoking also increases your risk for serious complications, such as poor blood flow, nerve damage, blindness, kidney disease, and heart disease.

Quitting smoking will improve your blood glucose levels and insulin resistance. Make a plan to quit: Set a date and let your family and friends know that you're quitting. You can either go cold turkey or taper off—whatever works for you. Nicotine patches, nicotine gum, or prescription medication from your health care provider can help.

Key Takeaways

- If you have diabetes, you are more likely to have lung conditions such as COPD and pulmonary fibrosis.
- Diabetes also has an impact on lung function, or how well you breathe.
- Some studies show that lung function gets worse as blood glucose levels increase. The longer you've lived with diabetes, the worse your lung function may be.
- Scientists aren't sure why diabetes and lung function are related. Inflammation in your body may be to blame. Obesity may play a role as well.

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