



Patient education: Interstitial lung disease (The Basics)

Written by the doctors and editors at UpToDate

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What is interstitial lung disease?

Interstitial lung disease, or "ILD," is a group of lung disorders, most of which cause similar symptoms and changes in the lungs.

ILD causes inflammation and sometimes scarring in the lungs. This can make it harder to breathe, often causes a cough, and sometimes makes it hard for oxygen to get from the air into the blood.

There are many causes of ILD, including:

- Autoimmune diseases – These are diseases in which the body's infection-fighting system (called the immune system) attacks healthy tissue instead of infections.
- Certain medicines (including some treatments for cancer)
- Harmful substances that are breathed in over a long period of time – These include cigarette smoke, e-cigarette or "vaping" products, mold, chemicals, or dust from asbestos, silica, metals, or coal.
- Radiation (high doses of X-rays)
- Certain lung infections
- Other medical conditions (such as cancer or sarcoidosis)

In some cases, doctors don't know what is causing ILD. For example, they use the term "idiopathic pulmonary fibrosis" for certain lung changes without a known cause.

What are the symptoms of ILD?

The most common symptoms are:

- Trouble breathing or feeling short of breath, especially with activity or exercise

- A dry cough that lasts for a long time

Some people have no symptoms at first. They might learn they have ILD when they have a chest X-ray or breathing tests for another reason. Sometimes, small changes on these tests cause doctors to watch a person more closely. This way, they can see if ILD develops over time.

Some medical conditions that cause ILD also cause symptoms in other parts of the body. For example, some autoimmune disorders also cause skin or joint symptoms.

Is there a test for ILD?

Yes. If you have ILD, your doctor or nurse will want to know what's causing it. They will ask about your medicines, past medical conditions, whether you might have breathed in harmful substances, and whether you have any other symptoms that might be related.

Your doctor or nurse will also order tests to try to figure out the cause of ILD. These usually include:

- Blood tests
- Chest X-ray
- CT scan of the chest – This is an imaging test that creates pictures of the inside of the body.
- Electrocardiogram, or "ECG" – This measures the electrical activity in the heart. It can show if you also have a heart problem.
- Breathing tests, also called "pulmonary function tests" – These measure how well the lungs are working.

In some cases, people might also have:

- Echocardiogram – This uses sound waves to create pictures of the heart. It can show if the heart is pumping normally.
- Bronchoscopy – A doctor uses a thin tube (called a "bronchoscope") to look inside the lungs and get a sample of fluid.
- Lung biopsy – A doctor takes a small sample of tissue from the lung. Then, another doctor looks at the sample under a microscope. Not everyone needs a lung biopsy. It is done only if all the other tests don't show what's causing the ILD.

How is ILD treated?

Treatment depends on the cause of your ILD and how severe your symptoms are.

If your lung disease is caused by an infection, your doctor might prescribe medicines to kill the germs causing the infection.

If your lung disease is caused by one of your medicines, your doctor will recommend you stop taking it.

Many people with ILD are treated with:

- Extra oxygen (that you carry around with you in a tank)
- Vaccines to prevent infections like pneumonia, the flu, and COVID-19
- Steroid medicines to reduce inflammation, such as [prednisone](#)
- Medicines to slow lung damage, such as [pirfenidone](#) (brand name: Esbriet) and [nintedanib](#) (brand name: Ofev)
- Pulmonary rehabilitation, or "rehab" – People learn exercises and ways to breathe that can help with symptoms.

In some cases, people with severe ILD might be treated with a lung transplant. This is surgery to replace 1 or both diseased lungs with healthy lungs.

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