Information for patients and families

Read this handout to learn about:

- What hypersensitivity pneumonitis (HP) is
- Signs and symptoms
- How your doctor will know if you have it
- Tests you may need
- Treatments
- Where to get more information

What is Hypersensitivity pneumonitis (HP)?

Hypersensitivity pneumonitis (HP) is an interstitial lung disease. HP happens when you inhale or breathe in certain fungal, bacterial or animal proteins (called antigens) over and over again. In some people, these particles cause an immune reaction in the body. This can lead to inflammation or even scarring of the lung.

It is not known why only a small number of people who are exposed to these antigens get HP. Research suggests that genetics and the environment where a person lives may act together to make some people more likely to get the disease.

HP should not be confused with the more common types of “allergies”, caused by dust mites, cat dander, pollen and grass. If you have seasonal or environmental allergies, this has nothing to do with having HP.
What are the signs and symptoms of HP?

HP is a very complicated condition, which can be divided into 2 types: acute (sudden and urgent) and chronic (ongoing). The symptoms are different for each type.

1. Acute HP
   - Happens after a lot of contact with an antigen, but over a short period of time
   - Symptoms come on quickly and include fever, chills, fatigue, breathlessness, chest tightness and cough
   - If the person stops having contact with the antigen, the HP usually goes away in 24 to 48 hours
   - A person often recovers completely

2. Chronic HP
   - Might happen after less contact with the antigen, but over a longer period of time
   - Symptoms are harder to recognize
   - People with chronic HP often had no acute illness in the past and say they have shortness of breath or cough over a long time
   - Some patients have fever or feel unwell
   - Patients might have seen their symptoms being worse at work, home, or wherever they came into contact with the antigen

Most patients we see in our clinic have this type of HP.

How will my doctor know if I have HP?

To find out if you have HP, your doctor will talk to you about your medical history and do a physical exam.

At this visit your doctor will:
   - listen to your chest with a stethoscope
   - check your skin and joints
   - talk with you about any other medical problems that you had that could be related to lung scarring (for example, connective tissue diseases or autoimmune diseases)
   - review your medications
   - ask about job-related and environmental exposure you may have had
   - ask you about any contact you may have had or are having with mould, or birds, including bird products, such as down
The next step is to do some tests.

**What tests will I need?**

Your doctor will talk to you about which tests are right for you. Here are some tests that help to show if a patient has HP:

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<th>Pulmonary Function Testing (PFT)</th>
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<td>This breathing test will measure:</td>
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<tr>
<td>• the flow of air in your lungs</td>
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<td>• the volume of air in your lungs</td>
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<td>• how well your lungs take oxygen from the air</td>
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<tr>
<th>High Resolution Computed Tomography (HRCT)</th>
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<td>This is a special type of CT scan that makes detailed pictures of your lungs. The scan can take pictures while you lie on your back and while you lie on your chest. It can also take pictures while you breathe air out of your lungs. The HRCT is a very valuable test to help your doctor find out whether or not you have HP.</td>
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<td>Having an HRCT is the same as having a regular CT scan. Both scans have you lie on an open-air table and only take a few minutes. Only the steps for doing a HRCT are different.</td>
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<th>Blood tests</th>
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<td>Blood tests will show if you have other diseases. They will check for antibodies. These will show whether you have a connective tissue disease, such as Rheumatoid arthritis or Scleroderma. Some people with these diseases have lung problems before they get any other symptoms.</td>
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Six Minute Walk Testing
This test looks at how far you can walk. It also measures the amount of oxygen in your body while you are walking. The test uses a probe on your finger or in your ear.

Bronchoscopy
This test collects samples of fluid and tissue from your lungs. First your doctor will numb the back of your throat. They will give you medicine to make you more comfortable. Then the doctor will use a flexible fiberoptic scope, which is about the size of a pencil. The scope passes down your trachea or “breathing tube” into your lungs. Then the doctor collects the samples. This test will help your doctor find out if you have HP.

Bronchoscopy is an outpatient procedure. This means you do not need to stay overnight in the hospital.

Surgical Lung Biopsy
A lung biopsy is a type of surgery to take samples of lung tissue for testing. You will have the biopsy under general anesthetic (you will be asleep).
- A chest surgeon will do the biopsy. They will make cuts in the side of your chest that are 1 inch (2.5 cm) long. Then the surgeon will use small tools and cameras to collect samples from your lungs.
- You will need to stay in the hospital for a few days after the biopsy.

Home evaluation
Your doctor may recommend that you have a certified industrial hygienist inspect your home. Industrial hygienists are trained to check your home and workplace. They look for possible hazardous exposures, like moulds, and may test for mould to find out if there are high levels in your home.
- A home evaluation can be expensive, but it may find what is causing your lung condition. Talk to your doctor about whether or not you need a home evaluation.
What is the treatment for HP?

Treating HP involves:

1. **Finding and removing the antigen causing the problem.**
   - If the antigen you inhaled can be found and removed, you can recover completely.
   - If you have chronic HP, then you may still have the disease even if the antigen is removed.
   - If the antigen cannot be found, you may need to change your work or home environment, if possible.

2. **Giving you anti-inflammatory medication.**
   - If you do not get better or continue to get worse, we may prescribe an anti-inflammatory medication such as Prednisone®. If you need to take this medication for a long time or you do not tolerate prednisone, we may prescribe Azathioprine®, Mycophenolate®, and/or Cyclophosphamide®.

What other things can be done for HP?

**Pulmonary rehabilitation** treats patients with an exercise and educational program designed just for you.

**Lung transplant** may be the right treatment option for some patients. Your doctor will talk to you about this, if needed.

It may also be important to pay careful attention to other medical problems you may have such as gastroesophageal reflux disease (GERD) or pulmonary arterial hypertension (PAH).

Where can I find more information about HP?

If you have questions about HP, please talk to your doctor.