

# Hypersensitivity Pneumonitis (HP)



UHN

## Information for patients

### 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. 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.

### Watch for these 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 is removed from contact with the antigen, the HP usually goes away in 24 to 48 hours
- A person often recovers completely

Please visit the UHN Patient Education website for more health information:

[www.uhnpatienteducation.ca](http://www.uhnpatienteducation.ca)

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Author: Dr. Shane Shapera  
Created: 12/2011  
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University Health Network  
Toronto General Hospital Toronto Western Hospital Princess Margaret Hospital



## 2. Chronic HP

- Might happen after less contact with the antigen, but over a longer period of time
- Symptoms are harder to recognize
- Patients with chronic HP often have had no acute illness in the past and say they have shortness of breath or cough over along 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 examination.

This will include:

- listening to your chest with a stethoscope
- checking your skin and joints.
- talking with you about any other medical problems that you may have had that could be related to lung scarring (for example, connective tissue diseases or autoimmune diseases)
- reviewing your medications
- asking about job-related and environmental exposure you may have had
- asking you about any contact you may have had or are having with mould, or birds, including bird products, such as down.

Also, you may need to have **one or more** of these tests to help your doctor find out whether or not you have HP:

**Pulmonary Function Testing (PFT)** – This test involves breathing tests that measure how the air is flowing in your lungs’, how much air is in your lungs, and how well your lungs can take oxygen from the air.

**High Resolution Computed Tomography (HRCT)** – This is a special type of CT scan that gives your doctor very detailed images of your lungs. Images may be taken in several different ways: while you are lying on your back, lying on your chest, and possibly, while having you breathe air out of your lungs.

- Having a HRCT is no different than having a regular CT scan but requires a special protocol; they both are performed on an open-air table and take only a few minutes.

**Blood Tests** – You may need to have special blood tests that will look for different antibodies (immune factors that you produce to fight infection) to see if you have a connective tissue disease, such as Rheumatoid arthritis or Scleroderma.

**Six Minute Walk Testing** – This tests how far you can walk and how much oxygen you have in your body while you are walking.

**Bronchoscopy** – During this test, a flexible scope or tube, about the size of a pencil, is passed down your trachea or “breathing tube” into your lungs to get fluid and tissue samples. Your doctor will “numb” the back of your throat with a medication, if needed, to make you comfortable.

- Bronchoscopy is an outpatient test, so you will not need to stay overnight in the hospital. This test is not always needed, but may be done by your doctor in certain cases.

**Surgical Lung Biopsy** – This is a type of surgery usually done with small tools and cameras through 1 inch-long incisions (cuts) in the side of the chest. A chest surgeon will do a surgical lung biopsy using general anesthetic (you will be asleep during the biopsy). You will need to stay a few days in the hospital after the procedure.

**Home evaluation** – Your doctor may recommend that you have a professional inspection of your home by a certified industrial hygienist. 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 an effective 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.