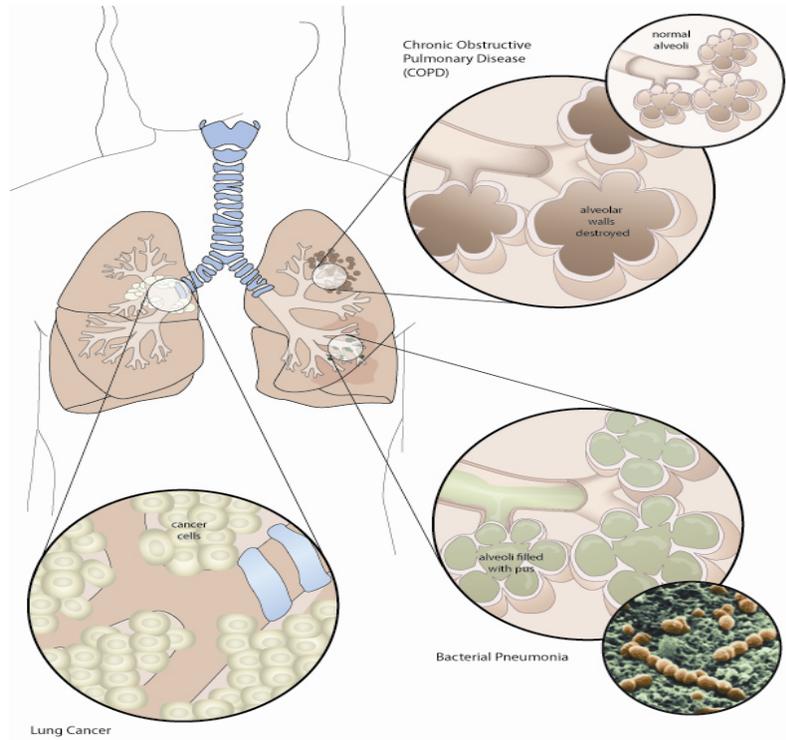


# Treatment Topic of the Month

## June 2008

### KNOW YOUR LUNGS WELL!

#### A Holistic Treatment Guide



#### **Disclaimer**

The Treatment Resources Program at the Toronto People with AIDS Foundation provides information and resources to empower people living with HIV/AIDS to be proactive around their health by working in partnership with their health providers. We do not recommend or promote any treatment in particular. We strongly urge those interested in any specific treatment to consult a wide range of resources including a qualified medical and/or complementary therapy practitioner who has experience working with HIV+ patients.

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For treatment information and resources,  
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# HIV & Lung Disease!

## Why Are the Lungs Important?

Your lungs are located on either side of your heart and play a crucial role in the process of respiration or breathing. They are responsible for transporting oxygen from the atmosphere into the bloodstream, releasing carbon dioxide from the bloodstream into the atmosphere. This exchange of gases is accomplished in the mosaic of specialized cells that form millions of tiny, exceptionally thin-walled air sacs called alveoli.

## Lung Problems & HIV

Upper respiratory and lung problems can be the result of many causes including bacteria, viruses, protozoa and tumours. HIV affects the ability of your immune system to fight off common bacteria and viruses that affect the lungs, such as Mycobacterium Avium Complex (MAC), Tuberculosis, and even Chronic Obstructive Pulmonary Disease (COPD). COPD is an umbrella term for conditions that affect the lungs including emphysema and chronic bronchitis. Many HIV-positive people are at risk for a severe type of pneumonia called Pneumocystis Pneumonia (PCP). It is caused by common protozoa called Pneumocystis jiroveci that impacts people with weakened immune systems. More recently, there has been concern about the incidence of lung cancer in HIV-positive people. A 2007 study at Johns Hopkins University has shown that HIV-positive people are at a higher risk for developing lung cancer independent of cigarette smoking.

## Who is at Risk for Lung Disease?

HIV-positive people are at greater risk for lung disease. People with HIV are 50-60% more likely to develop Chronic Obstructive Pulmonary Disease (COPD). HIV-positive people are also at a greater risk for Pneumocystis Pneumonia because of a suppressed immune system. Even though smoking is the most significant risk factor for COPD, it is believed that HIV increases susceptibility to COPD or accelerates decline in lung function. Researchers in England found that prior to Highly Active Anti-Retroviral Therapy (HAART), the risk of lung cancer was about the same in HIV-negative and HIV-positive people. However, the risk of developing lung cancer in HIV-positive people has become approximately eight times greater since the availability of HAART. The following factors could have an impact on survival from lung cancer; age of lung cancer diagnosis, number of cigarettes smoked and CD4 levels at time of diagnosis.

## Signs & Symptoms?

It can be confusing to figure out what type of respiratory problem you might have because there is a lot of similarity between the common symptoms of various lung diseases. For HIV-positive people, it is important to consult a medical doctor in order to monitor any symptoms especially in the case of Pneumocystis Pneumonia (PCP). The main symptoms of PCP are a fever along with a dry cough that usually doesn't produce any phlegm (sputum). Other symptoms can include fatigue and night sweats especially before breathing difficulties develop. Common symptoms of COPD are a lingering cough with sputum or mucous production, shortness of breath especially with exercise, wheezing (whistling or squeaky sound when you breathe), chest tightness and at least one incidence of bronchitis (inflammation of the bronchial tubes) ever winter. In contrast to these lung diseases, lung cancer doesn't typically cause symptoms until the disease has reached a more advanced stage. Symptoms can include a cough that doesn't go away, changes in a chronic or a smoker's cough, coughing up even a small amount of blood, shortness of breath, chest pain and wheezing.

# HIV Medications:

## Screening Tests:

It is important that you talk to your doctor about the importance of screening for lung diseases, especially lung cancer, even if you have relatively high CD4 counts. Guidelines are now recommending the use of CT scans on any HIV-positive smoker with a persistent chest abnormality after the use of appropriate antibiotics. There is no blood test to determine if Pneumocystis Pneumonia (PCP) is present in the body. To diagnose PCP, fluid (sputum) or tissue from the lungs is collected by a doctor and examined by a laboratory under a microscope. While X-rays can be used to determine how much fluid has collected in the lungs, they can't tell the difference between PCP and other lung infections like tuberculosis.

## Prophylaxis/Treatment:

Bactrim (Septra) is the main prophylaxis (prevention therapy) and treatment for Pneumocystis pneumonia (PCP). It is made up of two medications called Trimethoprim Sulfamethoxazole (TMP-SMX). You will need to take different dosages of this medication depending on your CD4 counts and the severity of the PCP that you have. Some people take a single strength tablet daily while others take a double-strength tablet three times per week. It can also be given intravenously for more severe cases in the hospital. Like any medication, there are side effects of Bactrim/Septra that include nausea, vomiting, loss of appetite, rash and itchy skin. Less common side effects can include headaches, abdominal pain, diarrhea, hepatitis, pancreatitis, kidney toxicity and muscle/joint pain. It can temporarily weaken bone marrow in some people, it can cause sensitivity to sunlight or bright light and it affects the ability of a fetus to absorb folic acid leading to neural tube defects. Women of colour are at a slightly higher risk of developing skin reactions.

## Other Medications for Pneumocystis Pneumonia:

Some people cannot tolerate Bactrim/Septra because of its side effects especially of skin rashes, nausea, fever, itching, vomiting and leucopenia. Dapsone (Avlosulfon) is also used as a prophylaxis and treatment for PCP by people who cannot tolerate Septra. The most common dosage of Dapsone is 100 mg/day. Dapsone is sometimes used in combination with pyremethamine. Some common side effects of Dapsone include nausea, vomiting, abdominal pain, dizziness and blurred vision. Less common side effects are pancreatitis, anemia, a hypersensitivity reaction can appear as a rash, fever, jaundice or skin eruptions in the first six weeks of treatment. It can also increase the risk of peripheral neuropathy when used with Anti-Retrovirals (ARVs) such as Didanosine (ddl), Stavudine (d4T) or Zalcitabine (ddC). Mepron (ataviquone) is also used as a prophylaxis for PCP. It is a creamy liquid that must be taken every day with fatty food in order to be absorbed properly into the bloodstream.

## Medications for COPD:

Treatment for COPD includes inhalers that open the airways (bronchodilators) and sometimes theophylline. Patients with COPD must stop smoking. In some cases inhaled steroids are used to reduce lung inflammation. In severe cases or flare-ups, the health care provider may prescribe steroids through a vein (intravenous) or by mouth (oral). Antibiotics are used during flare-ups of symptoms, because infections can make COPD worse. Some people may need chronic, low-flow oxygen, non-invasive ventilation, or a tube to get oxygen (intubation). Surgery to remove parts of the diseased lung may be helpful for some patients with COPD.

## Nutrition and Lung Disease:

Epidemiological studies suggest that diet and nutrition may have an influence on lung function and the tendency to common lung diseases such as asthma, chronic obstructive pulmonary disease (COPD) and lung cancer. A diet rich in fresh fruit and fish has been associated with a salutary effect on lung health. For example, end-stage COPD is associated with a state of nutritional depletion that may benefit from nutritional supplementation.

### Smoking:

Smoking is the underlying cause of most cases of emphysema and chronic bronchitis. Quitting smoking can help to preserve remaining lung function. Even though recent studies indicate that HIV status alone is a risk factor for various types of lung disease, quitting or decreasing smoking will have an overall positive effect on many areas of health, but especially lung health. Furthermore, exposure to other respiratory irritants such as air pollution, dust, toxic gases and fumes may aggravate respiratory symptoms and should be avoided whenever possible.

### Dietary Tips to Help Maintain Good Health:

The following are some general nutrition and dietary tips to enhance your lung health;

- While you need calories for each food group of protein, carbohydrates and fat, people suffering from chronic lung disease may find that a low carbohydrate, higher fat diet can make a big difference.
- Limit your salt intake because sodium causes fluid retention which may interfere with breathing.
- Limit your intake of caffeinated drinks because caffeine can interfere with some medications and can cause restlessness.
- Avoid foods which cause gas and bloating.
- Eat several small meals of high nutritional value. Large meals leaving you feeling full will restrict full inspiration and make it difficult to breathe.
- Be sure to use oxygen during meals (for COPD) as your body needs oxygen during eating and for digestion.
- Eat your main meal early in the day so that you will have more energy throughout the day.

## Supplements

**Boost Your Immunity with Anti-Oxidants:** All people living with HIV are already suffering from compromised immune systems. If you also have experienced any form of lung disease, it is even more important to boost your immune system with anti-oxidants. The body uses anti-oxidants through food and supplements in order to fight off free radical damage that results from the process of oxidization,. Some examples of anti-oxidants in supplements include the vitamins A, C, E, zinc and selenium as well as Alpha Lipoic Acid, Acetyl-L-Carnitine and N-Acetyl Cysteine (NAC).

**N-Acetyl Cysteine (NAC)** is an amino-acid derived anti-oxidant that is broken down into Glutathione. Glutathione detoxifies chemicals into less harmful compounds, protects the body from acetaminophen poisoning and protects the cell membranes of immune cells such as lymphocytes and phagocytes. It acts upon the lungs by breaking down mucous in the lungs and thinning it out-making it useful for respiratory conditions such as bronchitis and influenza. Double-blind research has found that N-Acetyl Cysteine supplements improved symptoms and prevented recurrences in people with chronic bronchitis. N-Acetyl Cysteine at a dosage of 1,200 mg per day helps to prevent Influenza infection and reduce the symptoms and duration of existing Influenza infection.

# Homeopathy and Lung Disease:

***It is important to consult a qualified and trained Homeopathic Physician in the treatment of acute and chronic conditions. Please do not attempt to treat yourself.***

Homeopathy is the second most popular form of medicine practiced worldwide. It is a naturally-based form of medicine that targets the underlying cause of disease by assisting the natural tendency of the body to heal itself. Homeopathy uses specially prepared remedies which are chosen based on the 'Law of Similars'. This philosophy states that a given substance will cure in diseased person the same symptoms which it causes in a healthy person. Most diseases that affect the lung are potentially serious and it is important to inform your doctor if you have any symptoms such as bloody expectoration and significant difficulty in breathing. Homeopathic medicine has a successful track record in treating respiratory ailments by itself or as a complement to western medicine.

***Aconitum Napellus:*** this remedy is most useful in the onset or in the very early stages of pneumonia and bronchitis. It is also useful in pulmonary congestions. Symptoms that indicate its use include a high fever preceded by a distinct chill; sudden on-set of symptoms as a result of exposure to cold, drafts or dry, cold winds; the skin is hot and dry but without moisture; a hard, dry, teasing and painful cough; there may be expectoration that is watery, serous and frothy that can be blood-tinged but not thick; a cold that begins with coryza, frequent sneezing, chilliness, restless sleep, full and hard pulse; low sensitivity to pain; anxiety and even a fear of death.

***Antimonium-Tartaricum:*** corresponds to both the early and late stages of bronchitis and other lung ailments. Symptoms that indicate its use include wheezing while breathing; a loose cough with no phlegm; superficial respiration; vomiting of food and mucous; great oppression of breathing that is worse towards morning and compels the patient to sit up and breathe; sharp, stitching pains and high fever; a keynote symptom is the patient is sure the next cough will raise the mucous, but it does not do so.

***Arsenicum Album:*** is one of the most commonly prescribed remedies for PCP, chronic pneumonia and asthma. It is indicated with symptoms of stitches in the upper right chest or in the left side of the lungs upon inspiration; acute, sharp, fixed or darting pains in the apex and through upper third of the right lung; difficult breathing from slightest motion; pneumonia with a dark and offensive sputum and great weakness.

***Bryonia Alba:*** Is one of the top remedies for pneumonia. Symptoms include a moderate fever; a severe cough that hurts the head and distant parts of the body; the patient may press their hands on the sides of the chest while coughing to relieve the pain; sputum is scanty and rust-coloured; great pressure over the sternum; pains are worse for motion and breathing and are relieved by lying on the right or painful side; difficult breathing and a dry cough; is worse after a meal and there is little expectoration; stitching pains in the side.

***Phosphorus:*** is especially suited to lingering cases in delicate, tall, slender patients. It is often indicated in pneumonia of the lobes of the lungs. Some symptoms include paroxysmal cough with pain under the sternum, suffocative pressure in the upper part of the chest with constriction of the larynx; hoarseness, bloody, yellow and mucous sputum that can be purulent; salty or sweet taste of sputum; patient feels better after sleep; cough is worse after meals, from talking and going into the open air.

## Traditional Chinese Medicine and Lung Disease:

Traditional Chinese Medicine (TCM) was developed in China over 2000 years ago. TCM consists of acupuncture, herbal therapy and tuina (massage and manipulation involving acupressure). Essentially Chinese Medicine is an energy therapy in which the body's life force (qi) has a very close relationship with blood and controls the body's mechanisms of homeostasis, immunity and energy flow. Qi is connected through a series of networks called meridians. In this philosophy, health encompasses the whole body as well as the mind and emotions.

We know that people living with HIV are at a greater risk for various types of lung disease. Pneumocystis Pneumonia (PCP) is the most prevalent opportunistic infection that affects the lungs. It is also one of the most common protozoan infections relating to HIV/AIDS. Traditional Chinese Medicine can act as a complement to Western medications in many types of lung disease. Most PCP-related symptoms are related to one of four diagnoses- Lung Heat; Lung Damp Heat; Lung Qi Deficiency and Lung Yin Deficiency. The following are symptoms associated with each of these diagnoses;

- **Lung Heat:** symptoms include fever, sweating, cough, shortness of breath and a rapid and superficial pulse.
- **Lung Damp Heat:** symptoms include full, high-pitched cough; inflammation of the chest; wheezing; copious phlegm; no thirst, laboured breathing when lying down and a swollen face.
- **Lung Qi Deficiency:** symptoms include a hoarse and whispering voice; reluctance to talk; shallow breathing, a weak cough; sweating; a lack of warmth and thin, white phlegm.
- **Lung Yin Deficiency-** is a common side effect of PCP drug therapy. Symptoms include digestive upset with exhaustion, a dry cough, difficulty sleeping, afternoon fevers, night sweats, dry mouth and throat, weak voice, red cheeks, feverish sensation in the palms, soles and chest; and scanty phlegm streaked with blood.

Exercise, especially weight resistance training, is important to combat the damage of HIV upon your body. However, it is best not to exercise during acute stages of PCP when breathing is difficult and fatigue overwhelming.

### Acupuncture:

HIV+ people have been using acupuncture to enhance the immune system, reduce pain, to minimize side effects of HIV medications and to manage HIV-related disorders such as opportunistic infections since the beginning of the HIV/AIDS epidemic. Based on a specific Chinese Medical diagnosis, acupuncture can assist with the treatment of many symptoms associated with HIV/AIDS including various forms of lung disease.

### Chinese Herbs:

TCM Doctors often use Chinese Herbs in conjunction with acupuncture and dietary changes. ***Most Chinese herbs are not meant to be over-the-counter remedies. It is important to choose a well-trained and qualified professional who can diagnose you accurately and treat you effectively.***

# Wellness Resource Guide

## Health Promotion Services at PWA:

**Contact Rebecca, Treatment Resources Coordinator for;**

- Student Massage Clinic
- Holistic Treatment Counselling
- Community Naturopathic Clinic for People with HIV
- Harm Reduction

**Contact Kevin, Programs Coordinator for;**

- Volunteer Massage Program
- Reiki
- Therapeutic Touch

**Contact Greg, Speakers Bureau Coordinator for;**

- The Energy Healing Circle

**Contact Llewellyn, Treatment Access Coordinator for;**

- Trillium
- Compassion Access to Medications (H-MAP)

## Treatment Websites:

CATIE

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

The Body

[www.thebody.com](http://www.thebody.com)

AIDSInfonet (New Mexico AIDS Project)

[www.aidsinfony.org](http://www.aidsinfony.org)

AIDS Map

[www.aidsmap.org](http://www.aidsmap.org)

AIDS Treatment News

[www.aidsnews.org](http://www.aidsnews.org)

HIV/AIDS Medications

[www.aidsmeds.com](http://www.aidsmeds.com)

Multilingual HIV Treatment Information

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

The Well Project (geared towards women)

[www.thewellproject.org](http://www.thewellproject.org)

Project Inform

[www.projectinform.org](http://www.projectinform.org)

## Nutrition:

Jon Kaiser [Immune Power: The Comprehensive Healing Program for HIV](#)

Jon Kaiser [www.jonkaiser.com](http://www.jonkaiser.com)

Lark Lands [www.larklands.net](http://www.larklands.net)

CATIE [A Practical Guide to Nutrition for People Living with HIV](#)

## Complementary Therapies:

CATIE

[Practical Guide to Complementary Therapies](#)

Complementary Therapists List

[www.actoronto.org](http://www.actoronto.org)

Homeopathy

[http://www.csoh.ca/Homeopathy\\_Introduction.htm](http://www.csoh.ca/Homeopathy_Introduction.htm)

Traditional Chinese Medicine

[www.docmisha.com](http://www.docmisha.com)

Nutrition Services:

[www.stmichaelshospital.com/programs/nutrition](http://www.stmichaelshospital.com/programs/nutrition)

Community Naturopathic Clinic

416-324-4187 (to book an appointment)

## Community Resources:

Toronto People With AIDS Foundation

[www.pwatoronto.org](http://www.pwatoronto.org)

VOICES of Positive Women

[www.vopw.org](http://www.vopw.org)

Black Coalition for AIDS Prevention

[www.black-cap.com](http://www.black-cap.com)

Asian Community AIDS Services

[www.acas.org](http://www.acas.org)

Alliance for South Asian AIDS Prevention

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