

What You Should Know About Lung Disease

BY DR. DAVIDICUS WONG

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RESPIRATORY SYMPTOMS

Shortness of breath or difficulty breathing

- **Potential causes:** asthma, chronic lung disease, anemia, heart disease, heart failure, lung cancer, COVID-19, and other respiratory infections.

Wheezing

A musical sound when breathing out.

- **Potential causes:** asthma, bronchitis, or partial obstruction of the airway.

Coughing

Caused by any irritation of the airway

- **Potential causes:** colds, allergies, post-nasal drip, bronchitis, asthma, acid reflux, COVID-19, pneumonia, and respiratory tract cancers.

Coughing blood

- **Potential causes:** nosebleeds, broken blood vessels, nasopharyngeal, and lung cancers.

TYPES OF LUNG DISEASE

1. **Airway Disease:** chronic lung disease, asthma, bronchitis, pneumonia, COVID-19
2. **Lung Tissue Disease:** pulmonary fibrosis, sarcoidosis, damage from drugs/radiation
3. **Circulatory Disease:** pulmonary hypertension, pulmonary embolism
4. **Lung cancer**

BRONCHITIS AND PNEUMONIA: LOWER RESPIRATORY TRACT INFECTIONS

Bronchitis

An infection of the bronchi

- **Symptoms:** cough, shortness of breath, chest congestion, sometimes productive of mucus, sometimes wheezing

Pneumonia

An infection of the tissues of the lungs

- **Symptoms:** cough, shortness of breath, chest congestion, sometimes productive of mucus, sometimes wheezing, often marked fatigue, sometimes chest pain with breathing

PLEURISY OR PLEURITIS

- Inflammation of the **pleura**, the membranes lining the outer edges of the lungs
- Often associated with pain with breathing in and out

ASTHMA

A chronic, usually hereditary and sometimes allergic condition of reversible airway constriction (bronchospasm)

- **Symptoms:** coughing, wheezing (heard on exhalation), shortness of breath with exercise/activity, sometimes triggered by allergies, exercise or cold air, often worse at night
- Diagnosed with **spirometry** (lung function tests)
- Often associated with pain with breathing in and out
- **Treatment:**
 - a. Short acting bronchodilators
 - b. Inhaled steroids to reduce airway inflammation
 - c. Long acting bronchodilators
 - d. Oral medications (Singulair, prednisone)

CHRONIC OBSTRUCTIVE LUNG DISEASE (COPD, EMPHYSEMA)

Irreversible bronchoconstriction and inflammation of the airways

- **Common causes:** smoking, air pollution, occupational exposure (e.g. firefighters)
- **Symptoms:** chronic cough, often productive of mucus in the morning, shortness of breath with exertion/activity, shortness of breath at rest (when severe), frequent exacerbations with respiratory infections, sometimes chronic wheezing
- **Diagnosed and monitoring:** lung function tests
- **Treatment:** smoking cessation (quitnow.ca), a variety of inhalers to decrease airway inflammation and open airways, respiratory rehabilitation, home oxygen when severe

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RSV VACCINES

3 vaccines in Canada:

- *Abrysvo, Arexvy, mResvia* (\$230 to \$300 for single dose – only required once)
- **Recommended:** pregnant women 32 to 36 weeks, over 75 years of age, 60 to 74 years of age with risk factors (e.g. heart, lung, kidney disease; long term care facility)
- Not covered by public health/Pharmacare in BC

LUNG CANCER

- **Primary Bronchogenic Carcinoma:** arising from the cells of the lung
- **Metastatic Lung Cancer:** originating from a cancer elsewhere in the body spreading to the lungs
- **Symptoms**
 - Often no symptoms (found incidentally on x-rays or CT scans)
 - Chronic cough
 - Increasing shortness of breath
 - Unexplained weight loss
 - Blood in sputum
 - Wheezing
- **Lung Cancer Screening Program**
 - with low dose CT scan
 - Inclusion criteria: ages 55 to 74, smoking history
 - To determine if you qualify, contact the Lung Screening Program:
 - 1-877-717-5864
 - bccancer.bc.ca/screening/lung/get-screened

OBSTRUCTIVE SLEEP APNEA

When the soft tissues in your throat (e.g. tongue and soft palate) narrow or close, blocking the flow of air into your trachea

OBSTRUCTIVE SLEEP APNEA (CONTINUED)

Common symptoms:

- Daytime sleepiness or drowsiness
- Loud snoring often with choking and gasping, morning headaches
- Restless sleep with frequent awakenings during the night

Risks of Untreated Sleep Apnea:

- Accidents (including MVAs)
- Cognitive impairment
- Increased blood pressure
- Marital discord

Diagnosis:

1. Home sleep apnea testing (HSAT)
2. Polysomnogram (overnight stay at a sleep lab)

Treatment:

- Weight loss if overweight
- Avoiding alcohol and sedatives
- Sleeping on your side (tennis ball in a fanny bag); oral appliance that prevents your tongue from falling back into your airway
- CPAP (continuous positive airway pressure)

INTERSTITIAL LUNG DISEASE

Symptoms

- Shortness of breath at rest or with exertion
- Dry cough

Diagnosis:

- Chest x-rays
- CT scans
- Lung function tests

Complications:

- Pulmonary hypertension
- Heart failure
- Respiratory failure

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INTERSTITIAL LUNG DISEASE (CONTINUED)

Many causes:

- Long term exposure to hazardous material such as asbestos, silica dust, grain dust, radiation treatment
- Autoimmune conditions such as rheumatoid arthritis, sarcoidosis, scleroderma, Sjogren's syndrome
- Some medications, such as amiodarone, chemotherapy, rituximab, sulfasalazine

PULMONARY THROMBOEMBOLISM

- A blood clot that blocks the flow of blood in an artery of the lung
- Usual cause is a blood clot in the deep veins of the leg (deep vein thrombosis)

Symptoms

- Cough that may be bloody
- Rapid heart rate
- Excessive sweating
- Chest pain
- Shortness of breath
- Lightheadedness
- Leg pain and swelling

Diagnosis:

- CT angiogram

Treatment:

- Anticoagulation (medication that dissolves the clot)

PNEUMOTHORAX

- Collapse of the lung when air leaks into the space between the lung and the chest wall (pleura)

PNEUMOTHORAX (CONTINUED)

Symptoms:

- Sudden chest pain and shortness of breath

Causes:

- Blunt or penetrating chest injury (e.g. a fall, MVA, stabbing, acupuncture, medical procedure)
- Can be spontaneous without a cause

Treatment:

- Insertion of a needle or chest tube between the ribs to remove the excess trapped air

PNEUMONIA VACCINES

(Pneumovax or Pneumo 23, Prevnar 20)

- Prevnar 20 is the latest vaccine to prevent disease caused by certain strains of the bacteria streptococcus pneumoniae)

Now covered in B.C. for:

- Everyone over 65
- Residents of residential care or assisted living facilities
- Others with certain chronic conditions who are at increased risk (e.g. asthma, chronic lung disease)



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