

Hemoptysis (Coughing Blood)

Hemoptysis (which is pronounced he-MOP-tis-is) is coughing up blood from the respiratory tract. Blood can come from the nose, mouth, throat, the airway passages leading to the lungs, or the lungs. The word "hemoptysis" comes from the Greek "haima," meaning "blood," and "ptysis," which means "a spitting".

Blood-tinged mucus in a healthy nonsmoker usually indicates a mild infection. Indeed, the most common cause for coughing up blood is the least serious—a ruptured small blood vessel caused by coughing and/or a bronchial infection.

In patients with a history of smoking and those who are otherwise at risk for lung disease, however, hemoptysis is often a sign of serious illness. Serious conditions that can cause hemoptysis include bronchiectasis (chronic dilation and infection of the bronchioles and bronchi), pulmonary embolus (a clogged artery in the lungs that can lead to tissue death), pneumonia (a lung infection), and tuberculosis. Hemoptysis can also result from inhaling a foreign body (e.g., particle of food) that ruptures a blood vessel. Whatever the suspected cause, hemoptysis should always be reported to a physician.

Hemoptysis refers specifically to blood that comes from the respiratory tract. Blood also may come from the nose, the back of the throat, or part of the gastrointestinal tract. When blood originates outside of the respiratory tract, the condition is known as "pseudohemoptysis." Vomiting up blood, medically known as hematemesis, is one type of pseudohemoptysis. Differentiating between hemoptysis and hematemesis is an integral part of diagnosis. Since they involve different parts of the body, treatments and prognosis (prospect of recovery) are not the same.

Classifying hemoptysis as mild or massive (some practitioners classify it as trivial, moderate, or massive) is difficult because the amount of blood is often hard to accurately quantify. Life-threatening, "massive"

hemoptysis, which requires immediate medical attention, is differentiated from less severe cases.

Massive hemoptysis

Hemoptysis is considered massive, or major, when there is so much blood that it interrupts breathing (generally more than about 200-240 mL, or about 1 cup, in 24 hours). Massive hemoptysis is a medical emergency: the mortality rate for patients with massive hemoptysis can be as high as 75%. Most patients who die from hemoptysis suffer from asphyxiation (lack of oxygen) due to too much blood in the airways.

Mild hemoptysis

If there is a small amount of blood or sputum streaked with blood, the spitting is considered mild hemoptysis. In 60% to 70% of mild hemoptysis cases, the underlying disorder is benign and disappears on its own without causing serious problems or permanent damage. Even mild hemoptysis can result in critical breathing problems, depending on the underlying cause for the bleeding. Additionally, hemoptysis tends to occur intermittently and recur sporadically, and there is no way to predict if patients with mild hemoptysis are at risk for massive hemoptysis. Diagnosis is important to prevent a more serious condition.

Coughing up blood (hemoptysis) can be a frightening experience. However, it is not necessarily serious. Known causes of hemoptysis include:

- Lung infections such as bronchitis, pneumonia or bronchiectasis
- Violent coughing
- Fluid in the lungs (pulmonary edema)
- A blood clot in the lung (pulmonary embolism)
- Lung cancer
- Some forms of heart failure
- Trauma to the chest, such as from a car accident

- Foreign objects lodged in your airway
- Abuse of certain drugs, such as cocaine

A doctor may use a variety of procedures to determine the cause of hemoptysis, including:

- Chest X-ray
- Computerized tomography (CT) scan of the chest
- Bronchoscopy, a procedure in which a flexible tube is inserted into your airway to allow the doctor to see inside your windpipe (trachea) and airways (bronchial tubes)
- Lung biopsy
- Echocardiogram

When possible, treatment of hemoptysis is directed at the underlying cause. However, in many cases, the cause of hemoptysis can't be determined — doctors refer to this as cryptogenic hemoptysis. In such cases, your doctor will likely monitor your condition. Further testing also may be recommended.

Consult your doctor if you notice blood in your sputum. It is very important to exclude the serious causes of hemoptysis. If it is a large quantity of blood — more than a few teaspoons — seek emergency medical care.

Coughing up blood is not the same as bleeding from the mouth, throat, or gastrointestinal tract.

Blood that comes up with a cough often looks bubbly because it is mixed with air and mucus. It is usually bright red.

Common Causes:

A number of conditions, diseases, and medical tests may make you cough up blood.

Diseases and conditions may include:

- Bleeding gums such as with gingivitis
- Blood clot in the lung
- Bronchiectasis
- Bronchitis
- Cystic fibrosis
- Esophageal cancer
- Goodpasture's syndrome
- Irritation of the throat from violent coughing
- Nosebleed
- Laryngitis
- Lung cancer (see metastatic lung cancer)
- Pneumonia
- Pulmonary aspiration (inhaling blood into the lungs)
- Pulmonary edema
- Systemic lupus erythematosus
- Tuberculosis
- Wegener's granulomatosis

Diagnostic tests that may make you cough up blood may include:

- Bronchoscopy
- Laryngoscopy
- Lung biopsy
- Mediastinoscopy
- Spirometry
- Tonsillectomy
- Upper airway biopsy