

# Cough

## Cough

A cough is a human reflex and a natural defense of the body to irritant we encounter every day and one of the most common reasons for clinic visits. It is defined as an abrupt and forceful expulsion of air from the lungs. An occasional cough is normal as it helps clear the airway from microbes, mucus, or dust. However, persistent cough with accompanying symptoms such as shortness of breath, excessive mucus production, and bloody phlegm may signal a more serious medical problem.



A cough that persists for less than three weeks is an acute cough while a cough lasting between 3 and eight weeks improving by the end of that period is a sub-acute cough. A persistent cough that continues past eight weeks is a chronic cough. Most cough clears within two weeks, but some red flag includes blood in the phlegm and barking cough. If red flag symptoms occur, an immediate visit to doctors' clinic is advised.

## Causes and Triggers

Cause and triggers of cough can be divided into two **Acute cough** and **Chronic cough**

- **Acute cough**
  - Frequent colds/Runny nose and flu
  - Allergies and asthma
  - Inhalation of allergens or irritating substances

- Postnasal drip or upper airway cough syndrome: it is a dry cough triggered by the recurrent dripping of mucus from the back of the nose to the throat.
- Heart Failure
- **Chronic cough**
  - Chronic Obstructive Pulmonary Disease (COPD): Is a general term for several chronic lung conditions such as emphysema, chronic bronchitis and chronic asthma.
  - Certain Types of Medications
  - Lung Cancer
  - Tuberculosis
  - Asthma
  - Chronic Lung Infections
  - Fungal Infections in the lungs

## Symptoms

Cough is often signs or symptoms of underlying diseases. It is crucial to determine the duration, types, and features of cough as long as other symptoms that occur with it. Doing so will help medical practitioners determine the critical cause and treat it accordingly.

- Red Flags for Cough and warning signs to see a doctor
  - Difficulty breathing
  - Chest pain
  - Ongoing heartburn (feeling of burning pain or disorder in the chest)
  - Blood in the phlegm or in saliva
  - Fever or night sweats (can be a symptom of Tuberculosis)
  - Difficulty swallowing/cough when swallowing

## Diagnosis

Doctors will need to listen to breath sounds and check the throat, evaluate the cough and interview the patient to take history. Vital signs such as temperature, blood pressure, respiratory rate, and pulse rate may be measured. Also the oxygen saturation may be quantified using the pulse oximeter. The doctor may check the back of the throat and ears if it is suspected ear and throat infections. Heart and lungs will be auscultated with a stethoscope and check if there are swelling of legs or any changes in the color of the skin. The following tests may be added based on the judgment of the physician.

- Chest X-ray or CT Scan, it uses a minimal amount of radiation to visualize the chest
- A complete blood count (CBC) will check for any forms of infection in the body
- Throat swab and sputum sample, it will confirm suspected viral or bacterial infection
- Spirometry, patients are asked to breathe out hard and fast into a small plastic device for measuring how good they breathe out air.
- Bronchoscopy, the doctors insert a flexible tube with a camera called bronchoscope to visualize the inside of the upper respiratory track

## Treatment and Management

- Self-care and management

- Only use cough medicine if cough is already causing intolerable discomfort but be sure to follow the instructed dosage and ways of taking the medicine
- Do not give the children under four over the counter cough medicine without consulting the physician because of the risk of choking
- Avoid smoking or seek help to help to quit cigarette smoking
- Use air vaporizer to assist in soothing the irritated throat and decreasing congestion
- Avoid known irritants in work and home
- Avoid being contagious to others by taking the following actions
  - Constant and proper hand washing
  - Practice hygiene the mouth when coughing and sneezing or by wearing a mask
  - Avoid visiting public places when sick
  - Avoid shaking hands with others
- Others measures to seek comfort during cough episodes:
  - Keeping the body hydrated by drinking plenty of water and avoiding sugary and thick beverages
  - Elevate head with extra pillows when sleeping
  - A teaspoon of honey and ginger and hot tea can relieve cough
  - Gargling with warm salt water frequently to help remove the mucus and soothe throat cavity
- Medical Treatment and Management
  - Treating the underlying disorder is the primary goal of medical treatment of cough. As a general rule, since cough is the body's defense to clear the airways, cough should not be repressed instead treat the significant cause.
    - Antibiotics in cases of respiratory infections such as pneumonia
    - Inhaler drugs called bronchodilators and steroids might be recommended for COPD or asthma
    - If the cough already interferes with sleep and causing severe discomfort, two kinds of drugs can be prescribed such as
      - Cough suppressants reduces the urge to cough
      - Expectorants are meant to dissolve the mucus that blocks the airways to the lungs and make it easier to cough up.
  - If the cough is due to post-nasal drip, anti-allergies or antihistamine needs to be taken
  - Acid-reflux: Anti-acids, H2-blockers (stomach acid reducers) and proton inhibitors (stomach acid blockers) will be used for treatment
  - Tuberculosis will be treated with months long duration of combination therapy with antibiotics
  - Other causes such as cancers and heart failures are treated with specific algorithms by specialist doctors.