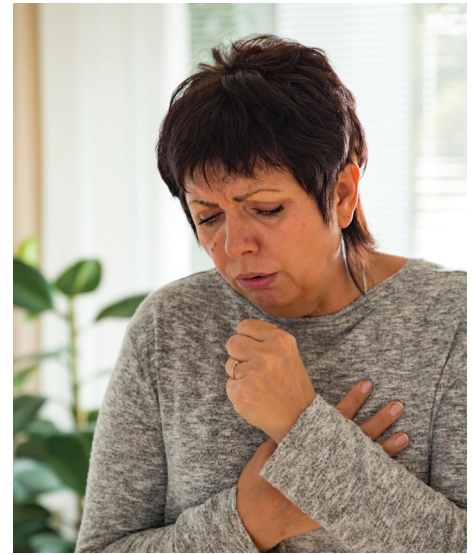


Cough in Adults

When air passes out through our voice box with force, a sound is made that we all recognize as a “cough”. The act of coughing usually begins with a deep breath in, followed by air leaving the mouth with force. A cough is your body’s way of preventing material from entering your breathing tubes (airways) and clearing mucus or foreign material from your airways. While coughing is a one of the lung’s defenses, it is often a symptom of a problem that needs treatment.

Cough is one of the most common complaint for which people seek medical care. This fact sheet reviews cough problems in adults.



A cough is not a disease, but can be a common symptom of different upper and lower respiratory tract diseases. Even if you do not have a lung disease, you may cough. There are many things that can lead to coughing.

Not all coughs are from infection. For example, a cough can happen when something irritates your nerve endings, called cough receptors. Inhaling particles, vapors, smoke, fumes, dust, or cold air may irritate these receptors and may make you cough.

If you have a cough, keep track of how long you have been coughing. Your healthcare provider may also ask questions about whether or not it is wet or dry, or whether it wakes you from sleep, or any trigger for cough besides an active sickness.

Can a cough spread infection?

Cough is a common way infection spreads from one person to others. Influenza (the flu), SARS-CoV-2 (COVID-19), and tuberculosis (TB) are examples of infections that can be spread by coughing infected droplets into the air. Viruses can also be spread to others by hand-to-face contact. Hand-to-face contact is when you shake hands with someone who has the infection or touch something that has the virus on it and then your touch your mouth, nose or eyes.

To help decrease the spread of infection, you should:

- Cover your mouth and nose with a tissue or into your upper sleeve or elbow when coughing or sneezing.
- Dispose of used tissues into a waste basket.
- Avoid spitting as it can cause a mist that may infect others.
- Wear a facemask if you are coughing or have cold symptoms.
- Wash your hands often and for at least 20 seconds using soap and water. Use an alcohol-based hand rub (sanitizer) when soap and water are not available.
- Limit your close contact with others when you have an infection that is contagious such as COVID.

Acute, Sub-acute and Chronic Cough

There are three time periods to use as you describe how long you have had your cough: acute (lasts less than 3 weeks), sub-acute (lasts 3 to 8 weeks) or chronic (lasts more than 8 weeks and does not let up).

- An **acute cough** is most often caused by an upper respiratory infection or common cold. This cough slowly starts to improve by the third to fifth day. Cough from a cold usually is not a serious threat to health and usually does not last longer than

14 days. People with a cold often have nasal stuffiness, runny nose, throat clearing, and a sore or scratchy throat. They also may feel like they have mucus dripping down the back of their throat (post-nasal drip).

Acute cough can also be due to inhaling irritants such as pollens or strong fumes. Cough may be the first symptom of inadequate control of asthma. Less commonly, an acute cough can be due to more serious conditions such as pneumonia or heart failure.

- A **sub-acute** cough most commonly happens after a respiratory infection (often from a virus). Other common reasons for a sub-acute cough are: whooping cough (pertussis) and flare ups of conditions such as asthma, chronic bronchitis, chronic obstructive lung disease (COPD), sinusitis or bronchiectasis.
- A **chronic cough** can happen to you for many reasons or a combination of problems. Some common causes of chronic cough include:
 - Inflammation of nose or sinuses from allergy or infection (rhinitis or sinusitis)
 - Poorly controlled asthma
 - Lung problems with infection such as bronchiectasis or cystic fibrosis (cough is often wet or ‘phlegmy’)
 - Smoking tobacco or marijuana or vaping
 - Gastro-esophageal reflux (when stomach contents back up into esophagus)

When should I contact my healthcare provider about my cough?

Any time that your cough concerns you, you should discuss it with your healthcare provider. It is very important that you contact your healthcare provider if:

- You spit up blood when you cough.
- You have chest pain or trouble breathing (shortness of breath) when you cough.
- Your coughing makes you vomit.
- You have an unexplained weight loss.
- Your cough began after you were in close contact with someone who has whooping cough.
- Your cough lasts more than 8 weeks.
- Your cough starts to get better and then gets worse.
- If you have a lung problem such as asthma or cystic fibrosis (CF) and have frequent or chronic cough.

ATS Patient Education | Information Series

Sometimes frequent bouts of cough or a forceful cough may lead to vomiting. Pertussis (whooping cough) is an infection that is typically associated with coughing that provokes vomiting. If you have such a cough-vomit syndrome, ask your healthcare provider about the possibility of pertussis. See also ATS fact sheet on Pertussis (whooping cough).

When might I need specialist care?

Your primary healthcare provider often will be able to answer your questions about your cough. If your primary healthcare provider is unable to find the reason for your cough or find ways to stop or improve your cough, you may be referred to a lung specialist (pulmonologist) or a cough specialist. Sometimes, a complete evaluation of your cough may include more than just your respiratory system. You may, for example, need an evaluation of your gastrointestinal (GI) tract. You may also need to see an otolaryngologist (specialist who deals with the nose, sinuses, ears, and throat).

Frequently asked questions about cough

Can medications cause cough?

Yes, some medications can cause you to cough. A common cause is from a category of drugs called angiotensin converting enzyme inhibitors, also referred to as “ACE inhibitors”. These drugs are commonly given for high blood pressure or heart failure. If you start coughing after you start a new medicine, tell your healthcare provider.

Should I take over-the-counter cough medications?

Over-the-counter (OTC) cough and cold medications are drugs that you can buy without a prescription. If you have lung disease, you should discuss using them with your healthcare provider before using them. In adults, if you choose to use OTC medications for cough due to the common cold, the use of one of the antihistamines such as diphenhydramine, brompheniramine or chlorpheniramine or a non-steroidal anti-inflammatory drugs (NSAID) may be tried as long as there is no reason why you should not take them. These drugs can cause side effects or problems for some people, such as an allergy, possible drug interaction, or other health problems. For example, chlorpheniramine or brompheniramine can cause problems with glaucoma or an enlarged prostate. NSAID medications such as ibuprofen or naproxen can cause kidney problems or stomach irritation or worsen other health problems such as heart failure. If you take an OTC cough medicine and your cough does not get better or you begin to feel worse, contact your healthcare provider.

Since 2008, the US FDA has recommended that cold and cough products **not be used** in children under the age of 2 because of the risk of serious and potentially life-threatening side effects.

Are there any vaccines that can help prevent cough in adults?

Yes, consider getting the influenza (flu) shot each year. Those with allergies to eggs should speak to their healthcare provider before getting this shot. Other important vaccines for adults include the COVID, pneumonia (pneumococcal) and the whooping cough (pertussis) vaccines. Ask your healthcare provider if and when you should get these shots. For more information on these vaccines, see the ATS Patient Information Series at www.thoracic.org/patients/.

What should I do if I am told to “live with” my chronic cough?

While some conditions may lead to a daily cough, if your cough remains unexplained, it is appropriate to request a referral to a multi-specialty cough center for further investigation and

management. These centers not only have the experience with the latest medications to treat chronic cough; they often also use non-drug treatments. These may include behavioral cough suppression therapy and other complementary or alternative means. You also may have the opportunity to enroll in a research study related to chronic cough.

You are not alone. Others who have had chronic cough have found help with cough specialists and support groups offering a team approach to your care.

Action Steps:

- ✓ Pay attention to your cough pattern and other symptoms and when to contact a healthcare provider.
- ✓ Get recommended immunizations such as annual flu vaccine and COVID vaccines.
- ✓ Cover your nose and mouth whenever you cough or sneeze.
- ✓ Do good handwashing regularly.
- ✓ Do not smoke or vape and avoid contact with secondhand smoke, strong fumes and air pollution.

Healthcare Provider's Contact Number:

Authors: Manvi Bansal, MD, Cynthia T. French, PhD, ANP-BC, Richard S. Irwin, MD, Sarah Micklewright, MD, Kristen Szymonik, BS, RRT

Reviewers: Suzanne Lareau, RN, MSN, Marianna Sockrider MD, DrPH

Resources:

American Thoracic Society (ATS)

- <https://www.thoracic.org/patients>
 - Pertussis (whooping cough)
 - Influenza (flu)
 - Covid vaccines
 - COPD
 - COPD Medicines
 - Asthma & Allergens
 - Asthma & Exercise
 - Asthma Treatment
 - Asthma & Irritants

Centers for Disease Control and Prevention. Cough.

- <https://www.cdc.gov/hygiene/personal-hygiene/coughing-sneezing.html>

National Institutes of Health. Cough

- http://www.nlm.nih.gov/health/dci/Diseases/cough/cough_what.html

This information is a public service of the American Thoracic Society. The content is for educational purposes only. It should not be used as a substitute for the medical advice of one's healthcare provider.