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| ***Disease*** | ***cause*** | ***symptoms*** | ***diagnosis*** | ***treatment*** | ***prevention*** |
| Chronic bronchitis | **Smoking**  **Chronic bronchitis:** This one is more serious, in that it keeps coming back or doesn’t go away at all. It’s one of the conditions that makes up what's called [chronic obstructive pulmonary disease](https://www.webmd.com/lung/copd/default.htm) ([COPD](https://www.webmd.com/lung/copd/ss/slideshow-copd-overview)).  Air pollution can make symptoms worse for people with chronic bronchitis. | That’s when your bronchial tubes, which carry air to your [lungs](https://www.webmd.com/lung/picture-of-the-lungs), get infected and swollen. You end up with a nagging [cough](https://www.webmd.com/cold-and-flu/cough-relief-12/slideshow-cough-treatments) and a lot more mucus./ You'll definitely have a cough, and you may have various problems with breathing, such as:Chest congestion, where your chest feels full or clogged/A [cough](https://www.webmd.com/first-aid/coughs) that may bring up a lot of mucus that’s clear, white, yellow, or green/Shortness of breath /A [wheezing](https://www.webmd.com/asthma/tc/asthma-and-wheezing-topic-overview) or a whistling sound when you breathe/You may also: Have body aches and chills/Feel “wiped out”/Run a [low fever](https://www.webmd.com/first-aid/fevers-causes-symptoms-treatments)/Have a runny, stuffy nose/Have a [sore throat](https://www.webmd.com/cold-and-flu/understanding-sore-throat-basics) | How Do I Know Whether it’s Acute or Chronic?First, it’s important to figure out a time line.If you have a [cough](https://www.webmd.com/cold-and-flu/rm-quiz-nighttime-cough) and [breathing problems](https://www.webmd.com/lung/breathing-problems-causes-tests-treatments) that have lasted for months or years, it might be chronic bronchitis. This is a long-term health problem that needs ongoing treatment./ may start with a dry cough, then after a few days the coughing spells may bring up mucus. Most people get over an acute bout of bronchitis in two to three weeks, although the cough can sometimes hang on for four weeks or more. If you're in otherwise good health, your lungs will return to normal after you've recovered from the initial infection.  5 / 17  Repeated Bouts: Chronic BronchitisDoctors suspect this illness when you have a cough with phlegm on most days for at least three months in a year, for two years in a row. Chronic bronchitis is a serious condition that makes your lungs a breeding ground for bacterial infections and may require ongoing medical treatment. It's one form of chronic obstructive pulmonary disease (COPD), a lung disease that makes it hard to breathe. The "smoker's cough" is sometimes a sign of bronchitis and COPD./ have developed over time and through a physical examination. Using a stethoscope, your doctor will listen for any abnormal sounds produced within your lungs when you breathe.  12 / 17  How is Chronic Bronchitis Diagnosed?  Your doctor may recommend pulmonary function testing after doing a medical history and physical exam. Pulmonary function tests like spirometry measure how well the lungs are working. A chest X-ray may also be done. | Some people with very serious chronic bronchitis have it their entire lives. Others can successfully treat it. You’re more likely to get it if you smoke.  This usually requires a combination of [medications](https://www.webmd.com/drugs/index-drugs.aspx) and lifestyle changes. Important ways you can improve your [lung health](https://www.webmd.com/lung/default.htm) include:[Quit smoking](https://www.webmd.com/smoking-cessation/default.htm); ask your doctor about therapies that might help.Avoid things that can irritate your [lungs](https://www.webmd.com/lung/rm-quiz-lungs-quiz), such as [secondhand smoke](https://www.webmd.com/smoking-cessation/effects-of-secondhand-smoke), air pollution, and dust.[Wash your hands](https://www.webmd.com/cold-and-flu/cold-guide/cold-prevention-hand-washing) a lot to lower the odds of infection.  Don’t be surprised if your doctor simply recommends rest and lots of fluids. A bout of acute bronchitis will often fade away on its own. Letting your body rest and drinking plenty of fluids may help it disappear more quickly.  Other treatments may include:A [cough suppressant](https://www.webmd.com/cold-and-flu/cold-guide/cough-syrup-cough-medicine) (but only if you’re not bringing up mucus anymore; if you are, it means you’re still clearing your airways and your doctor likely won’t advise you to take one)Pain relieverSleeping near a humidifier or sitting in a steamy bathroom[Bronchodilators](https://www.webmd.com/asthma/guide/asthma_inhalers_bronchodilators) (inhaled medicines that help open your airways) | Don’t smoke |
| Cystic fibrosis | Genetic/ mutation of a particular gene – CTFR gene – which controls flow of salt and fluid into and out of cells/ if get mutated –thing get blocked | Mucus becomes thick and sticky – blocks ducts and tubes  Also affects pancreas, and liver  Salty tasting skin  Frequent [coughing](https://www.webmd.com/first-aid/coughs), [wheezing](https://www.webmd.com/children/understanding-cystic-fibrosis-symptoms), or bouts of [pneumonia](https://www.webmd.com/children/understanding-cystic-fibrosis-symptoms) or [sinusitis](https://www.webmd.com/webmd/consumer_assets/editorial/articles/health_and_medical_reference/allergies/miscellaneous/allergies_sinusitis.xml)/ Difficulty breathing that keeps getting worse/  Big appetite but poor [weight](https://www.webmd.com/children/understanding-cystic-fibrosis-symptoms) gain Chronic productive cough, recurrent lung infections | Genetic testing of newborns/  Chloride or sweat test/ chest X-ray/lung function test/  Test stool samples, may show digestive problems | No cure/ prevent lung infections / daily physio to help cough up mucus/more frequently if infections/vibrating vests – good for children but expensive. | Genetic testing to determine prior to children if parents have the mutated gene – could avoid having children |
| Emphysema | Most of the time, [tobacco](https://www.webmd.com/smoking-cessation/ss/slideshow-tips-quit-smoking)/smoking is the main culprit./ people exposed to high amounts of secondhand smoke probably have higher odds of getting emphysema./[AAT deficiency](https://www.webmd.com/lung/copd/alpha-1-antitrypsin-deficiency-rare): Alpha-1 antitrypsin ([AAT](https://www.webmd.com/lung/copd/alpha-1-deficiency-14/video-testing-for-alpha1)) is a natural protein that circulates in human [blood](https://www.webmd.com/heart/anatomy-picture-of-blood). Its main function is to keep white [blood cells](https://www.webmd.com/a-to-z-guides/rm-quiz-blood-basics) from damaging normal tissues. The body needs these cells to fight infections./ If you have AAT deficiency, your normal white blood cells will damage your lungs. The harm is even worse if you smoke./Over time, most people with severe AAT deficiency develop emphysema. If you have this disease, you may also develop [liver](https://www.webmd.com/digestive-disorders/picture-of-the-liver) problems. | You get emphysema when the linings of the tiny air sacs in your [lungs](https://www.webmd.com/lung/rm-quiz-lungs-quiz) become damaged beyond repair. Over time, your lung damage gets worse. Here’s what happens: The fragile tissues between air sacs are destroyed and air pockets form in the lungs./Air gets trapped in these pouches of damaged tissue./The lungs slowly get larger, and you find it harder to breathe. | If you have symptoms of emphysema, your doctor will do tests to see how well your lungs work. If you have the condition, you won’t be able to empty your lungs of air as quickly as you should. Doctors call this “airflow limitation.”/ Do you have [emphysema](https://www.webmd.com/lung/copd/what-is-emphysema)? You can’t go on symptoms alone. See your doctor. He’ll do the following tests to find out for sure:/ Medical HistoryYour doctor will talk to you about your health and any recent changes you might have noticed. If you have emphysema, you’ll probably have had shortness of breath, often over a period of months or years. You may also experience [wheezing](https://www.webmd.com/asthma/tc/asthma-and-wheezing-topic-overview). You might have a [cough](https://www.webmd.com/cold-and-flu/cough-relief-12/slideshow-cough-treatments) that won’t go away, too./ Your doctor will check your [weight](https://www.webmd.com/diet/tc/healthy-weight-what-is-a-healthy-weight) and [blood pressure](https://www.webmd.com/hypertension-high-blood-pressure/guide/diastolic-and-systolic-blood-pressure-know-your-numbers). He’ll listen to your heartbeat and keep an eye out for anything that seems strange or unusual. | no cure for emphysema,/ Bronchodilators/ Bronchodilators come in two forms:**Anticholinergics** stop the muscles around your airways from tightening. They also make it easier to clear mucus from the [lungs](https://www.webmd.com/lung/rm-quiz-lungs-quiz).**Beta-agonists** relax muscles around the airways./ [Steroids](https://www.webmd.com/a-to-z-guides/ss/slideshow-steroids-101) reduce swelling and mucus in your airways so you can breathe easier. Usually, you breathe them in with an inhaler/Over time, steroids can have serious side effects/Mucolytics/These drugs help thin the mucus in your lungs so you can [cough](https://www.webmd.com/cold-and-flu/cough-relief-12/slideshow-cough-treatments) it up easier. Studies show using them can reduce flare-ups, especially if your emphysema is more severe | Don’t smoke |
| Pleurisy | Infections –bacterial/viral/fungal  pnuemonia | Stabbing chestpain  Pain spreads to shoulder or back/  Cough/fever and chills  Rapid shallow breathing in response to the pain | Physical exam, listen to lungs disease history/ X-ray, CT, ultrasound to rule out other disease/blood test | If infection as cause, then antibiotics/antifungal/viral…will get better by itself – if excess fluid in pleura, may remove by needle/ pain killers/cough syrup | Probably can’t be prevented/ Good immune system to fight off infection…healthy diet/ may indicate deeper problem (blood clot perhaps)…suggests follow up |
| Pneumonia | Infection of alveoli, usually by bacteria | With pneumonia you might have all the [symptoms of flu](https://www.webmd.com/cold-and-flu/flu-guide/adult-flu-symptoms), but also:High fever up to 105 F/Coughing out greenish, yellow, or bloody mucus/ Chills that make you shake/Feeling like you can’t catch your breath, especially when you move around a lot/Feeling very tired/Low appetite/Sharp or stabby [chest pain](https://www.webmd.com/pain-management/guide/whats-causing-my-chest-pain) (you might feel it more when you cough or take a deep breath)/[Sweating](https://www.webmd.com/skin-problems-and-treatments/hyperhidrosis2) a lot/Fast breathing and heartbeat/Lips and [fingernails](https://www.webmd.com/skin-problems-and-treatments/ss/slideshow-nails-and-health) turning blue/Confusion (in older people) | Listening to your [lungs](https://www.webmd.com/lung/picture-of-the-lungs), with a stethoscope, for a crackling or bubbling sound/Chest X-ray/[Blood](https://www.webmd.com/heart/anatomy-picture-of-blood) test to check white blood cell count/Sputum tests (using a microscope to look at the gunk you [cough](https://www.webmd.com/cold-and-flu/cough-relief-12/slideshow-cough-treatments) up)/A [pulse](https://www.webmd.com/heart-disease/pulse-measurement) oximetry test, which measures the oxygen in your [blood](https://www.webmd.com/a-to-z-guides/rm-quiz-blood-basics)/ If an X-ray shows there’s fluid around your [lungs](https://www.webmd.com/lung/rm-quiz-lungs-quiz), your doctor may do a pleural fluid culture. In severe cases, your doctor might use an instrument called a bronchoscope to look at your lung’s airways. | How your pneumonia is treated depends on what caused it and how bad your symptoms are./ If you have [bacterial pneumonia](https://www.webmd.com/lung/bacterial-pneumonia), your doctor will give you [antibiotics](https://www.webmd.com/cold-and-flu/rm-quiz-antibiotics-myths-facts) to treat it. He’ll also take steps to prevent complications./If your pneumonia was caused by a virus, time and rest are key to your recovery. Viralpneumonia usually gets better on its own in 1 to 3 weeks. But your doctor may recommend treatment that includes:Drinking lots of fluids to loosen the gunk in your lungs/Lots of rest/Medicines to control your fever ([ibuprofen](https://www.webmd.com/drugs/mono-9368-IBUPROFEN+-+ORAL.aspx?drugid=5166&drugname=ibuprofen+oral) or [acetaminophen](https://www.webmd.com/drugs/2/drug-362/acetaminophen+oral/details))If i severe, you may have to stay in the hospital for treatment. |  |
| Tuberculosis | Contagious infection which attacks the lungs /can spread to brain and spine/bacterium is Mycobacterium tuberculosis | May not have symptoms/but when becomes active / A bad [cough](https://www.webmd.com/first-aid/coughs) that lasts 3 weeks or longer/[Pain](https://www.webmd.com/pain-management/default.htm) in your chest/[Coughing up blood](https://www.webmd.com/lung/coughing-up-blood) or [mucus](https://www.webmd.com/allergies/features/the-truth-about-mucus)/Feeling weak or very [tired](https://www.webmd.com/women/guide/why-so-tired-10-causes-fatigue)/Unexplained [weight loss](https://www.webmd.com/diet/default.htm)/Chills/[Fever](https://www.webmd.com/first-aid/fevers-causes-symptoms-treatments)/ [Sweating](https://www.webmd.com/skin-problems-and-treatments/hyperhidrosis2) at nightHaving no appetite | If your doctor thinks you may have TB, they'll listen to your [lungs](https://www.webmd.com/lung/picture-of-the-lungs) while you [breathe](https://www.webmd.com/lung/how-we-breathe). They'll also check your [lymph nodes](https://www.webmd.com/a-to-z-guides/tc/swollen-lymph-nodes-topic-overview) for swelling. Then they'll do a [skin](https://www.webmd.com/skin-problems-and-treatments/picture-of-the-skin) or [blood](https://www.webmd.com/heart/anatomy-picture-of-blood) test./ A tiny amount of fluid called tuberculin gets injected just below the skin in your forearm. It contains some inactive TB bacteria. skin test/ 2 or 3 days later/ If you have a raised, hard bump or there's swelling on your arm, you have a "positive" test. That means TB germs are in your body./no swelling etc then negative. | Antibiotics for a long time…6 to 9 months [Ethambutol](https://www.webmd.com/drugs/drug-8082-ethambutol+oral.aspx)/ Isoniazid/[Pyrazinamide](https://www.webmd.com/drugs/drug-7398-pyrazinamide+oral.aspx) /Rifampi  Almost always curable | Contagious by droplet infection/person with disease should be isolated as much as possible/should take all their meds even if feel well./ Always cover your [mouth](https://www.webmd.com/oral-health/anatomy-of-the-mouth) with a tissue when you [cough](https://www.webmd.com/first-aid/coughs) or [sneeze](https://www.webmd.com/allergies/features/11-surprising-sneezing-facts). Seal the tissue in a plastic bag, then throw it away./ [Wash your hands](https://www.webmd.com/cold-and-flu/cold-guide/cold-prevention-hand-washing) after [coughing](https://www.webmd.com/cold-and-flu/cough-relief-12/slideshow-cough-treatments) or [sneezing](https://www.webmd.com/allergies/rm-quiz-sneezing). |