



THE FAMILY PHARMACIST

A QUICK READ FOR YOUR OTC NEED!

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OVER-THE-COUNTER COUGH REMEDIES

This is a tough topic to discuss in just a few words. Cough can be a serious symptom in children and adults, but most of the time it is related to another condition, like the common cold. Most coughs are temporary, self-limiting, and mild and treatment is unnecessary. But at times a cough becomes so annoying that treatment may be helpful. The problem is that there still isn't good evidence for or against using over-the-counter (OTC) or prescription medicines for a cough due to a cold. Many oral drugs have been tried over the years to treat cough, but only a few ingredients remain on FDA's OTC approved list. Just two are in virtually every oral product on pharmacy shelves in the U.S. today. The OTC drugs for cough that remain can act locally (in the respiratory tract) or centrally (on the brain). *Guaifenesin* (Mucinex™ and others) is a locally acting medicine, and *dextromethorphan*, in almost all OTC cough medicine, is an ingredient that acts centrally. Popular non-drug approaches include *menthol* (found in cough drops), *camphor* found in chest rubs, and *honey*.

Guaifenesin (expectorant) To expectorate simply means to cough up phlegm or to spit. So how does a medicine make that happen? There are some studies that show guaifenesin works to decrease the amount and thickness of sputum allowing you to bring it up, so to speak, and spit it out or swallow it. If guaifenesin is effective in thinning and clearing secretions in the respiratory tract, you don't want to combine it with a cough suppressant. The cough reflex is necessary to eliminate the loosened phlegm. A 2014 study in the journal, *Respiratory Care*, concluded that guaifenesin was no better than a placebo. This agrees with other clinical studies, but many patients and doctors swear by it. If you still decide to try it, purchase it only as a single ingredient product and don't take it with a cough suppressant. One brand that contains only guaifenesin is Mucinex™ 12 Hour Extended Release Tablets.

Dextromethorphan (cough suppressant) Dextromethorphan might be helpful to calm a dry, non-productive cough. Studies are mixed at best. Dextromethorphan's effectiveness in treatment of acute cough is weak. If you try it, purchase it only as a single ingredient, for example in the brand name Delsym™ 12 Hour Cough Relief. Most other cough remedy products combine dextromethorphan with other ingredients, like guaifenesin just mentioned. But it's not a good idea to suppress a cough that is productive, that is, one that is allowing you to cough up phlegm easily. It's the dry, nonproductive cough that is annoying and debilitating. Dextromethorphan is similar in chemical structure to morphine, but it has no pain-relieving or addictive properties. However, in doses well in excess of label directions it can cause hallucinations. As of 2018, to curtail abuse of the drug, 14 states have banned OTC sale to minors, and it is a controlled substance in some countries. Also, read the label to avoid possible drug interactions.

Diphenhydramine (antihistamine) This ingredient was mentioned last month and it's worth mentioning again to treat cough. That's because diphenhydramine is approved by the FDA as a safe and effective ingredient for treating a cough as well as a cold and allergy. Unfortunately, the few liquid products that include it for use as a cough suppressant combine it with other ingredients that you may not really need to treat a dry cough. As mentioned, antihistamines are usually given for colds and allergy. The older antihistamines (like diphenhydramine) have the side effects of drying up secretions and causing drowsiness. But these side effects can be put to good use when you're sick. Drainage from a cold (post nasal drip) will trickle down your throat and make you cough. It may keep you awake at night and now you're more miserable than ever. Benadryl Allergy™ tablets 25mg will dry the secretions and help you sleep. So this is an adult bed-

time suggestion only. Make sure you drink lots of water to keep hydrated.

Drops, Lozenges, Rubs, and Sprays Drops and lozenges usually contain menthol as the active ingredient. There are virtually no studies on the effectiveness of cough drops, but common sense tells you that they help a little when you have a sore throat and cough. Buy the sugarless ones so you can suck on them throughout the day. Drops keep you salivating and thus moisten a dry throat, reducing the reflex to cough. So natural and homeopathic ones are good too. Chest rubs have been shown not to be effective. They can even make breathing more difficult, especially in children. Don't use them. Since a cold may start out with a sore throat, which usually only lasts a day or so, it can cause coughing. Cough drops and honey help with this during the day, but at night a sore throat is made worse by nasal drainage from the cold. Chloraseptic™ works well as a mild local anesthetic that contains phenol as the active ingredient. Spray it toward the back of your throat and let it sit until its numbing effect can give you some relief, allowing you to doze off (swallowing some of it won't hurt). Once you fall asleep, your brain turns off the cough reflex, especially during REM sleep, and you may get some needed rest.

Honey Believe it or not, just plain honey, right from the spoon, gets high marks in clinical studies for being effective for a cold and a cough. Two teaspoonfuls at bedtime in older children and adults may be helpful. However, honey should not be given to kids under one year of age (infants). Honey can contain spores of the organism that causes infant botulism.

My Recommendation First options for a cough should be lots of fluids and

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plain water, cool-mist humidifier, hot liquids, and honey. Don't use any OTC cough suppressant drugs in children under six. Talk to your physician.

Remember that these products work only marginally. Effectiveness studies sometimes demonstrate they're no better than placebo. Don't try to suppress a productive cough. Buy only a single ingredient product for each symptom (see the table below). If your cough persists for more than three weeks, contact your primary care physician. Something more serious than a cold may be going on.

Single Ingredient Cough Medicine	Symptom	Ingredient
Delsym™ 12 Hour Cough Relief Liquid	Dry, unproductive cough	Dextromethorphan
Mucinex™ 12 Hour Extended Release Tablets	Thick phlegm and mucous congestion	Guaifenesin
Benadryl Allergy™ 25mg Tablets	Nasal drainage causing cough at night	Diphenhydramine

References on file

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