
Cough Control the Natural Way

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Cough is the most common presenting symptom seen in a general family practice. Clinically, a cough is almost always merely a symptom of an underlying condition. It is important to look beyond the cough to treat the cause and, hence, achieve maximal relief.

Cough is a normal protective mechanism for clearing the airway of secretions, irritants, and foreign materials. Air expulsion in excess of 500 miles per hour has been recorded during a coughing episode. The emphasis when treating a cough is to help the body expectorate more efficiently and lessen undue irritation, thus, lessening the need to cough.

Among the leading causes of coughs are colds, bronchitis, pneumonia, allergies, and asthma. Coughs are also induced by drugs, nonspecific upper-respiratory-tract irritations, infections, and environmental triggers. Because coughs can also be symptomatic of other conditions, such as respiratory cancers, congestive heart failure, and chronic obstructive pulmonary disease, unremitting coughs must always be investigated further.

Whether a cough is caused by viral or bacterial infection or by another condition, many of the same natural medicine interventions can be beneficial in alleviating the discomfort.

Dietary Recommendations

Healthy respiratory-tract membranes are of paramount importance when it comes to addressing susceptibility to, or persistence of, coughs. The first and foremost step is to ensure that the respiratory tissues are optimally hydrated, resilient, and resistant to infection and irritation.

Consuming sufficient pristine water is by far the simplest way to lessen irritation and decrease the likelihood of an upper-airway infection and its resultant cough. Numerous studies have supported the conclusion that dehydrated mucous membranes are much more susceptible to external assault than well-hydrated tissues. Proper hydration confers protection and healthy tissues function better at a cellular level. When tissues are hydrated, they have an enhanced ability to produce the protective coating of secretory IgA.

Intake of liquids, other than water, that contain fructose, sucrose, glucose, honey, or citrus juice is not advisable.¹⁻³ These forms of sugar may actually lower immune function and increase susceptibility to, or progression of, infection. Avoiding other forms of sugar, in the form of foods, while combating a cough that may be immune related is equally critical. One of the current theories that explains the role of sugar in immune regulation is that ascorbic acid and glucose compete for white blood cell (WBC) transport sites, thus, leading to a downregulation of WBC function.

Other foods that nutritionally minded physicians commonly recommend avoiding for patients who suffer from congestion-related coughs include dairy products, bananas, oranges, peanuts, and other citrus fruits and juices.

Nutrient Recommendations

There are numerous nutrients that have proven themselves to be clinically useful for immune stimulation, yet there are substantially fewer nutrients that are specific for treating coughs. Generally speaking, a product can help to suppress a cough by lessening direct irritation, decreasing inflammation, enhancing

effectiveness of cough-related expectoration, or by downregulating the nervous system responsiveness that frequently leads to bouts of spasmodic coughing.

N-Acetyl Cysteine

N-acetylcysteine (NAC) is a diverse and clinically useful amino acid that has been used in the form of an inhalant in hospitals as a mucolytic. NAC mucolytic properties have been attributed to its cleaving of the disulfide bonds within mucous strands, which contribute to the viscosity of sputum. Although NAC is traditionally administered via inhalation or parenteral routes, oral dosing has proven to be clinically effective with peak levels of NAC occurring within 45 minutes after ingestion.

Clinically, the use of NAC helps to loosen sputum up within the airway, assisting in successful expectoration, thereby lessening airflow restriction and irritation resulting from excess mucus. It is advisable to increase the dosage slowly when administering NAC, because its ability to loosen mucus can, at times, overwhelm a compromised respiratory tract's ability to facilitate expectoration. Because NAC is also a powerful antioxidant that may assist in conferring localized respiratory protection, as well as enhancing glutathione levels within the body, this nutrient is frequently used to aid in protecting respiratory tissues when patients have conditions that can result in tissue damage.

Zinc

Zinc, particularly in the form of zinc lozenges, has been shown to help relieve the reflex cough associated with upper-respiratory-tract irritation and infection. Beyond this direct effect, it has been well documented that zinc helps to enhance immune-system function and actually has antiviral effects.⁴⁻⁶ In one study, subjects

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in a group treated with zinc lozenges had significantly fewer days of coughing—4.4 days compared to 7.6 days without zinc. The use of zinc lozenges can be extremely helpful in shortening the both the duration of cough and the intensity with which a cough persists.

When prescribing a zinc lozenge, selecting the correct form of zinc and formulation is critical. Much of the research on forms of zinc has focused on zinc gluconate. Additionally, researchers appear to have concluded, at this point, that a zinc lozenge formulated in a base of glycine optimized zinc's therapeutic effect. Researchers have also advised that it is important to avoid lozenges made with mannitol, sorbitol, and citric acids, because these ingredients appear to lessen the action of zinc.⁷

Herbal Recommendations

Herbal remedies have long been used to alleviate coughs and to promote expectoration. Traditionally, herbs have been used to increase the quantity and elimination of mucus while decreasing its viscosity.

Bromelain

Bromelain, a proteolytic enzyme derived from pineapple, has been shown to be helpful in the treatment of upper-respiratory-tract infections. Clinically, bromelain can exert a cough suppressant effect. Its additional mucolytic effect helps to break sputum viscosity up.⁸ Bromelain has also proven to be effective in the treatment of sinusitis and the associated cough that can arise from postnasal drip.⁹ Conditions associated with inflammation respond particularly well to bromelain. On a precautionary note, however, patients who are suffering from gastritis, esophagitis, or ulcers should be

cautioned to avoid using bromelain because it can contribute to exacerbation of symptoms of these disorders and to worsening of the underlying conditions.

Coleus

Extracts of coleus (*Coleus forskohlii*) lessen bronchial spasm as a result of increasing intracellular c-adenosine monophosphate, which, in turn, leads to bronchial smooth-muscle relaxation. Coleus also decreases histamine release, thus, lessening airway congestion.^{10,11} Therefore, this herb is useful for treating patients who have asthma-related coughs as well as allergy-triggered airway irritation.

Drosera

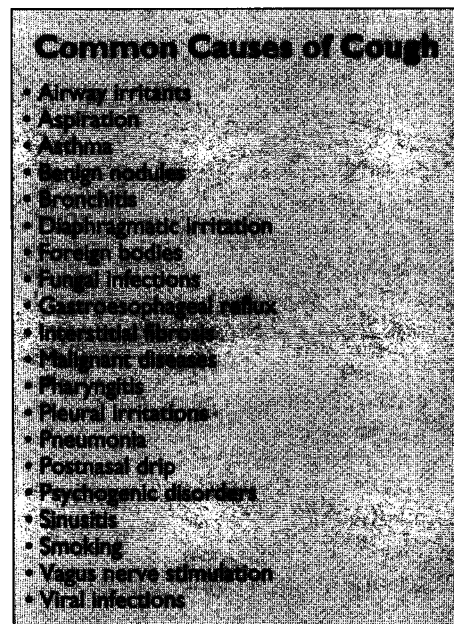
Also referred to as Sundew, drosera (*Drosera rotundifolia*) has demonstrated bronchoantispasmodic and antitussive effects.¹² This botanical is particularly helpful for treating patients who have bronchial irritations and spasmodic and croupy coughing episodes.

Glyceryl guaiacolate

This herbal-based medication is, by far, one of the most popular over-the-counter (OTC) medicines to assist in treating cough and reducing thickened mucus. This medicine increases respiratory-tract secretory production to help liquefy and reduce the viscosity of tenacious secretions.

Grindelia

Grindelia (*Grindelia* spp.), also known as gumweed, can be helpful in reducing excess mucous secretion in the upper respiratory tract. Grindelia is most effective when cough symptoms are associated with an excess accumulation of thick mucous congestion, yet, gumweed can also lessen the frequency of dry repetitive coughs.



Licorice

Glycyrrhizin and glycyrrhetic acid, derived from licorice (*Glycyrrhizia glabra*), bind to glucocorticoid receptors and exert anti-inflammatory effects.¹ In addition, licorice extracts also induce interferon production and inhibit the growth of many DNA and RNA viruses.¹³⁻¹⁵

Lobelia

Lobelia (*Lobelia inflata*) is an effective expectorant with a proposed mechanism of action that arises from adrenal-gland stimulation, which results in bronchial smooth-muscle relaxation.^{16,17} This herb has also been used to help in achieving smoking cessation and may actually decrease the classical smoker's cough via another mechanism.

Wild Cherry

Wild cherry (*Prunus serotina*) has a long history of use for cough, bronchitis, and whooping cough. The use of this herb as

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Natural Treatments for Coughs

Remedy	Dosage
Bromelain (2400 mcu potency)	375 mg, 3–4 times per day, not with food
<i>Coleus forskohlii</i> (18%)	50 mg, 2–3 times per day
<i>Drosera</i> (Sundew, <i>Drosera rotundifolia</i>)	1000 mg, 2–3 times per day
Glyceryl guaiacolate	200 mg, 4–6 times per day
<i>Grindelia</i> (Gumweed, <i>Grindelia</i> spp.)	1000 mg, 3 times per day
Licorice (glycyrrhizin)	200 mg, 3 times per day
<i>Lobelia</i> (<i>Lobelia inflata</i>) (1%)	100 mg, 2 times per day
N-acetylcysteine	500 mg, 2–4 times per day
Zinc	15–25 mg of elemental zinc every 2 hours for 7 days

an antitussive is still prevalent in many OTC and natural medicines.¹⁸ However, because of concerns about potential toxicity, wild cherry is not readily available for use by itself.

Environmental Recommendations

Environmental irritants are frequently implicated in both the propagation and prolongation of coughs. By far, the most common offending agents are cigarette, cigar and pipe smoke. Other contributing factors can be industrial exposures, such as dust that comes from paper, metal, fabric, and other materials. Airway irritants that are found in the home include dust mites, down and feather pillows and comforters, cleaners, paints, wood-stove smoke, and solvents. And, finally, air pollutants that frequently cause coughs include sulfur dioxide, nitrogen dioxide, and ozone. In the latter case, people that work or live in large cities with smog conditions are at a higher risk for developing conditions that cause coughs.

Summary

There is no single more frustrating condition for a clinician to face than the very simple yet common symptom of a cough. The nervous system involvement that can potentiate what often seems like

endless cycles of coughing, the numerous variables that can either improve or worsen a cough, and the frequent desperation of patients who often seek help after sleepless nights all contribute to the need to approach the treatment in a complementary and comprehensive manner. By far, the most important step when a practitioner is faced with a patient who has a persistent cough is to remove or lessen the cause and then to follow up with a systematic approach that will assist the patient's own body in the healing process. □

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