OVERVIEW

A sore throat (pharyngitis) is a common problem and usually is caused by a viral or bacterial infection. Sore throat usually resolves on its own without complications in adults, although it is important to know when to seek medical attention.

Viruses can cause a sore throat and other upper respiratory infections, such as the common cold. Sore throat caused by a virus is not treated with antibiotics but instead may be treated with rest, pain medication, and other therapies aimed at relieving symptoms.

Strep throat is a particular kind of pharyngitis that is caused by a bacterium known as group A Streptococcus (GAS). Strep throat is treated with a course of antibiotics.

A topic that discusses sore throat in children is available separately. (See "Patient education: Sore throat in children (Beyond the Basics)."

SORE THROAT SYMPTOMS

Viral pharyngitis — Most people with a sore throat have a virus. The most common viruses are those that cause upper respiratory infections, such as the common cold. (See "Patient education: The
Symptoms of a viral infection can include:

- A runny or congested nose
- Irritation or redness of the eyes
- Cough, hoarseness, or soreness in the roof of the mouth

Some viruses cause a fever and can make you feel quite ill.

**Strep throat** — Approximately 10 percent of adults with a sore throat have strep throat. Signs and symptoms of strep throat include the following (figure 1):

- Pain in the throat
- Fever (temperature greater than 100.4°F, or 38°C)
- Enlarged lymph glands in the neck
- White patches of pus on the side or back of the throat
- No cough, runny nose, or irritation/redness of the eyes

**Other infections** — Many other less common but more serious infections can cause a sore throat, including mononucleosis (mono), influenza (the flu), Neisseria gonococcus (gonorrhea), human immunodeficiency virus (HIV), and others. (See "Patient education: Symptoms of HIV infection (Beyond the Basics)" and "Patient education: Gonorrhea (Beyond the Basics)" and "Patient education: Influenza symptoms and treatment (Beyond the Basics)" and "Patient education: Infectious mononucleosis (mono) in adults and adolescents (Beyond the Basics)."

**When to seek urgent help** — See your doctor or nurse immediately if you have a sore throat along with any of the following:

- Difficulty breathing
- Skin rash
- Drooling because you cannot swallow
- Swelling of the neck or tongue
- Stiff neck or difficulty opening the mouth
- Underlying chronic illness/medication that may impair your immune system

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**SORE THROAT DIAGNOSIS**

Most people with a sore throat get better without treatment. There is no specific treatment for a sore throat caused by usual cold viruses.
Is it strep or not? — A combination of symptoms (fever, enlarged glands in the neck, white patches on your tonsils, and no cough) can help in determining if you have strep. If you have two or more symptoms, a rapid test or throat culture may be done. People with fewer than two symptoms usually do not need testing or treatment for strep throat, though they may benefit from treatment with modalities for symptom reduction.

Rapid test — The rapid test determines if there are *Streptococcus* bacteria on a throat swab. The test may be done in a clinician's office, and the results are available within a few minutes. The test is accurate in most cases, although a small percentage of tests are falsely negative (the bacteria are present but the test is negative) [1].

Throat culture — A throat culture involves swabbing the throat, sending the swab to a laboratory, and waiting 24 to 48 hours for the results. Throat cultures are slightly more accurate than the rapid test.

TREATMENT OF SORE THROAT

Sore throat treatment — Antibiotics do not help throat pain caused by a virus and are not recommended. Inappropriate use of antibiotics for viral illness can unnecessarily expose patients to side effects like diarrhea, rash, or more serious allergic reactions. Sore throat caused by viral infections usually lasts four to five days. During this time, treatments to reduce pain may be helpful. Several therapies can help to relieve throat pain.

  **Pain medication** — Over-the-counter pain relievers such as acetaminophen (Tylenol) or a nonsteroidal anti-inflammatory agent such as ibuprofen or naproxen (Motrin or Aleve) have been shown to provide fast and effective relief of sore throat pain.

  Oral steroids are not routinely used because steroids come with (potentially serious) side effects, the benefit in treating sore throat pain is limited, and over-the-counter treatments help most patients.

  **Oral rinses** — Salt-water gargles are an old standby for throat pain. It is not clear that salt water works to relieve pain, but it is unlikely to be harmful. Most recipes suggest 1/4 to 1/2 teaspoon (1.5 to 3.0 g) of salt per 1 cup (8 ounces or 250 mL) of warm water.

  **Sprays** — Sprays containing topical anesthetics (eg, benzocaine, phenol) are available to treat sore throat. However, such sprays are no more effective than sucking on hard candy.

  **Lozenges** — A variety of lozenges (cough drops) containing topical anesthetics are available to treat throat pain or relieve dryness. Lozenges may persist longer in the throat than sprays or gargles and, thus, may be more effective for symptom relief [2].
Other treatments — Other treatments that may help with throat pain include sipping warm beverages (eg, honey or lemon tea, chicken soup), cold beverages, or eating cold or frozen desserts (eg, ice cream, popsicles).

Alternative therapies — Health food stores, vitamin outlets, and internet websites offer alternative treatments for relief of sore throat pain. We do not recommend these type of treatments due to the risks of contamination with pesticides/herbicides, inaccurate labeling and dosing information, and a lack of studies showing that these treatments are safe and effective.

Strep throat — Although strep throat typically resolves on its own within two to five days, treatment with antibiotics is recommended for adults whose rapid test or throat culture is positive for strep throat [3].

Penicillin, or an antibiotic related to penicillin, is the treatment of choice for strep throat. It is usually given in pill or liquid form two to four times per day for 10 days. A one-time injection of penicillin is also available. People who are allergic to penicillin are given an alternate antibiotic. It is important to finish the entire course of treatment to completely eliminate the infection.

If symptoms do not begin to improve or if they worsen by three days of antibiotic treatment, you should see your doctor or nurse again.

Return to work/school — If you have been diagnosed with strep throat, stay home from work or school until you have completed 24 hours of antibiotics. Within 24 hours of beginning antibiotic treatment, you will feel better and will be less contagious [4].

If you have a sore throat (not diagnosed as strep), you may participate in your usual activities as soon as you feel well, though practical prevention measures such as good handwashing and cough etiquette should be observed.

SORE THROAT PREVENTION

Handwashing is an essential and highly effective way to prevent the spread of infection. Wet your hands with water and plain soap, and rub them together for 15 to 30 seconds. Pay special attention to the fingernails, between the fingers, and the wrists. Rinse your hands thoroughly, and dry them with a clean towel.

Alcohol-based hand rubs are a good alternative for disinfecting hands if a sink is not available. Hand rubs should be spread over the entire surface of hands, fingers, and wrists until dry and may be used several times. These rubs can be used repeatedly without skin irritation or loss of effectiveness. Hand
rubs are available as a liquid or wipe in small, portable sizes that are easy to carry in a pocket or handbag. When a sink is available, visibly soiled hands should be washed with soap and water.

Wash your hands after coughing, blowing the nose, or sneezing. While it is not always possible to avoid being near a person who is sick, avoid touching your eyes, nose, or mouth to prevent the spread of infection.

In addition, tissues should be used to cover the mouth when sneezing or coughing. These used tissues should be disposed of promptly. Sneezing/coughing into your sleeve (at the inner elbow) is another way to contain sprays of saliva and secretions and will not contaminate your hands.

WHERE TO GET MORE INFORMATION

Your health care provider is the best source of information for questions and concerns related to your medical problem.

This article will be updated as needed on our web site (www.uptodate.com/patients). Related topics for patients, as well as selected articles written for healthcare professionals, are also available. Some of the most relevant are listed below.

Patient level information — UpToDate offers two types of patient education materials.

The Basics — The Basics patient education pieces answer the four or five key questions a patient might have about a given condition. These articles are best for patients who want a general overview and who prefer short, easy-to-read materials.

Patient education: Sore throat in adults (The Basics)
Patient education: Laryngitis (The Basics)
Patient education: Cytomegalovirus (The Basics)
Patient education: Erythema nodosum (The Basics)

Beyond the Basics — Beyond the Basics patient education pieces are longer, more sophisticated, and more detailed. These articles are best for patients who want in-depth information and are comfortable with some medical jargon.

Patient education: Sore throat in children (Beyond the Basics)
Patient education: The common cold in adults (Beyond the Basics)
Patient education: Symptoms of HIV infection (Beyond the Basics)
Patient education: Gonorrhea (Beyond the Basics)
Patient education: Influenza symptoms and treatment (Beyond the Basics)
Professional level information — Professional level articles are designed to keep doctors and other health professionals up-to-date on the latest medical findings. These articles are thorough, long, and complex, and they contain multiple references to the research on which they are based. Professional level articles are best for people who are comfortable with a lot of medical terminology and who want to read the same materials their doctors are reading.

Group A streptococcal tonsillopharyngitis in children and adolescents: Clinical features and diagnosis
Complications of streptococcal tonsillopharyngitis
Evaluation of acute pharyngitis in adults
Evaluation of sore throat in children
Periodic fever with aphthous stomatitis, pharyngitis, and adenitis (PFAPA syndrome)
Peritonsillar cellulitis and abscess
Acute pharyngitis in children and adolescents: Symptomatic treatment
Tonsillectomy and/or adenoidectomy in children: Indications and contraindications
Treatment and prevention of streptococcal pharyngitis

The following organizations also provide reliable health information.

- National Library of Medicine
  (www.nlm.nih.gov/medlineplus/healthtopics.html)
- National Institute of Allergy and Infectious Diseases
  (www.niaid.nih.gov/)
- Infectious Diseases Society of America
  (www.idsociety.org)
- Centers for Disease Control and Prevention (CDC)
  Phone: (404) 639-3534
  Toll-free: (800) 311-3435
  (www.cdc.gov)

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REFERENCES


Strep throat can make the roof of your mouth turn red and your tonsils white. It can also make your uvula swell.
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