

# OTC treatments for tonsillitis and pharyngitis

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## Introduction

Pharyngitis and tonsillitis are infections causing inflammation in the throat. If the pharynx (or back of the throat) is affected it is known as pharyngitis, if the tonsils are inflamed it is called tonsillitis, and if both are affected it is pharyngotonsillitis.<sup>1</sup>

## The pharynx and tonsils

The pharynx is the name given to the area at the back of the throat between the tonsils and the voice box (larynx).<sup>2</sup> Tonsils are a pair of tissue masses on either side of the back of the throat. They are part of the immune system acting as the first line of defence against bacteria and viruses entering the mouth. This makes them vulnerable to infection. As the person grows older and develops a stronger immune system, the tonsils shrink and tonsil function declines. This may be the reason fewer adults develop tonsillitis.<sup>3,4</sup>

## Symptoms

The main symptom of either pharyngitis or tonsillitis is a sore throat. In tonsillitis, the tonsils will appear red and swollen and may have pus-filled spots.<sup>3</sup> Other symptoms include<sup>1,2,3</sup>:

- Fever (temperature over 38 °C)
- Coughing
- Painful swallowing
- Headache
- Loss of appetite
- Earache
- Nausea
- Fatigue
- Swollen glands in the neck
- Changes in or loss of voice
- Muscle pain

Young children may drool, refuse to eat or display unusual 'fussiness'.<sup>4</sup>

These symptoms are not specific to pharyngitis and tonsillitis, and if they do not improve within two days, the patient should be referred to a doctor.<sup>1</sup>

## Causes of pharyngitis and tonsillitis

Viral infections, such as those causing the common cold, are often the cause of pharyngitis and tonsillitis. Some infections may be bacterial, typically caused by streptococcal bacteria. Sore throats may also be caused by fungi, parasites and irritants such as cigarette smoke.<sup>1,3</sup> Babies, young children and school-aged children are considered to be most at risk for tonsillitis as most of the infections are spread through close contact.<sup>4</sup> Adults working in close environments may be at risk of contracting pharyngitis.<sup>3</sup>

## Treatment

Antibiotic therapy is recommended only for bacterial tonsillitis and pharyngitis. Most cases caused by viruses or irritants will resolve within a week and do not require antibiotic therapy.<sup>3</sup>

There are a number of options for symptomatic relief of pain. These include:

- Analgesics
- Topical throat preparations

Analgesics such as paracetamol and ibuprofen may provide relief from pain and inflammation and are suitable for use in children aged from one month and one year, respectively. Children and adolescents, under 16 years, should not be given aspirin due to the risk of Reye's syndrome.<sup>3</sup>

Topical throat preparations include oral rinses (gargles), sprays and lozenges.

- Oral rinses coat the mouth and the base of the tongue.
- Throat sprays coat the pharynx. Throat sprays are not recommended for use in children under the age of six years.
- Lozenges may contain anaesthetic and antiseptic agents. Lozenges may be a choking hazard in young children and should not be used in children under the age of four years.<sup>2,4,5</sup>

Other home remedies may provide relief from a sore throat. These include<sup>2,4,5</sup>:

- Increased fluid intake which assists in keeping the throat moist.
- Home-made gargles with warm salt water (2.5 ml salt in 1 cup water) may ease pain, but are not suitable for small children as they may swallow the water.
- Warm beverages such as tea or honey in warm water can be soothing.
- Cold beverages, ice-cream and jelly are particularly popular with small children and provide some relief from dryness and irritation.
- Humidifying the air prevents irritation from dry air.

## Products available

Oral rinses and gargles are used for throat pain and for oral hygiene. Disinfectant and anaesthetic ingredients (such as benzydamine, cetylpyridinium chloride and benzocaine) are useful in the treatment of mouth and throat pain.<sup>6,7</sup>

Throat sprays containing local anaesthetics (such as benzocaine) and disinfectants (e.g. chlorhexidine gluconate, phenol) are available to treat sore throats.<sup>6,7</sup>

Lozenges containing analgesics or anaesthetics (e.g. benzydamine HCl, benzocaine) and/or antiseptic or disinfectant agents (such as cetylpyridinium chloride, dichlorobenzyl alcohol) are available for symptomatic relief of throat pain. Throat lollies are available for use by smaller children; however they are not recommended for infants.<sup>6,7</sup>

## Active ingredients

Disinfectants such as amylmetacresol, cetylpyridinium, chlorhexidine gluconate, dichlorobenzyl alcohol and phenol are used in throat preparations to decrease bacterial activity.

Analgesics and local anaesthetics are used to relieve throat pain. Benzydamine HCl, menthol and flurbiprofen have analgesic properties.

Table I lists the properties of some of the active ingredients of products available.

**Table I.** Active ingredients and their properties<sup>6,7</sup>

Ingredient	Properties
Amylmetacresol	Disinfectant
Benzocaine	Local anaesthetic
Benzydamine HCl	Analgesic
Benzyl alcohol	Local anaesthetic
Cetylpyridinium chloride	Disinfectant, bactericidal
Chlorhexidine gluconate	Disinfectant
Dichlorobenzyl alcohol	Antiseptic
Glycyrrhiza Glabra	Anti-inflammatory, anti-allergic, analgesic, expectorant & immune booster
Menthol	Analgesic
Phenol	Disinfectant, bacteriostatic

Tables II and III list some of the products available and their active ingredients.

**Table II.** Throat sprays available and their active ingredients<sup>6,7</sup>

Throat sprays	Active ingredients
Andolex®	Benzydamine HCl
Andolex-C®	Benzydamine HCl Chlorhexidine gluconate
Medi-Keel A®	Phenol
Orochlor®	Benzocaine Chlorhexidine gluconate

**Table III.** Throat lozenges and their active ingredients<sup>6,7</sup>

Throat lozenges	Active ingredients
Andolex®	Benzydamine HCl
Andolex-C®	Benzydamine HCl Cetylpyridinium Cl
Cepacol®	Cetylpyridinium Cl Benzyl alcohol
Goldex Throat Lollies®	Cetylpyridinium Cl
Medi-Keel A®	Cetylpyridinium Cl Benzocaine
Strepsils®	Dichlorobenzyl alcohol Amylmetacresol Menthol* Lignocaine*
Strepsils® Intensive	Flurbiprofen
Septogard Lozenges	Glycyrrhiza Glabra

\*In some Strepsils® lozenges

## Cautions

Most children find it difficult to gargle and tend to swallow the mouthwash. Such products should not be used in children under the ages of six to eight years.<sup>3</sup>

Patients should be reminded that medicated lozenges are not sweets and that they must adhere to dosing instructions. Some products may not be suitable for all patients, and diabetics should be mindful that some lozenges contain

sugar. Lozenges should be used with caution in children due to their potential as a choking hazard.<sup>2,4</sup>

### When to refer the patient

Patients should be referred to their doctor if symptoms do not improve within two to four days. Symptoms to be aware of include:

- Difficulty breathing or swallowing
- High fever
- Swollen glands in the neck
- Rash
- Being unable to eat or drink due to pain in the throat

Children should be taken to the doctor if they exhibit extreme 'fussiness', are very fatigued or start drooling.<sup>1,3,4</sup>

### Conclusion

Tonsillitis and pharyngitis cause inflammation of the throat and tonsils due to infections. These conditions are often caused by viruses and require symptomatic treatment. If a

bacterial infection is suspected, an antibiotic may be needed. There are a number of medications available over-the-counter to provide symptomatic relief from a sore throat.<sup>1</sup>

### References

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