CONDITION

Retropharyngeal abscess

A retropharyngeal abscess is a pocket of infection behind the throat that can narrow the airway.

WHAT IT IS
Pus-filled infection behind the throat

BODY SYSTEM
Throat and upper airway

MAIN SYMPTOMS
Fever, neck stiffness, painful swallowing, breathing difficulty

WHAT CAUSES IT
Usually a bacterial infection

HOW IT IS DIAGNOSED
Contrast CT of the neck and specialist examination

MAIN TREATMENT
Hospital antibiotics, airway support, and sometimes drainage

CAN IT BE CURED?
Yes - prompt treatment usually clears it

IS IT AN EMERGENCY?
Yes - especially with breathing or swallowing trouble

LONG-TERM OUTLOOK
Full recovery is common after prompt treatment

Overview

A retropharyngeal abscess is a collection of pus in the tissues behind the throat. This area is close to the airway, major blood vessels, spine, and the space leading down into the chest.

The condition is most common in young children, although older children and adults can also develop it. In children, it may follow an infection in the nose, throat, sinuses, or ears. In adults, it is more likely to follow an injury, swallowed object, dental infection, or medical procedure involving the throat.

A retropharyngeal abscess needs urgent hospital assessment. Swelling can make swallowing difficult and may narrow the airway. The infection can also spread into nearby tissues or the chest if it is not treated.

Other conditions can cause similar symptoms. Symptoms alone cannot confirm that an abscess is present.

Symptoms

Symptoms can develop over several days, often during or shortly after an upper respiratory infection. Young children may not be able to describe where they hurt, so their first signs may be refusing food, crying when swallowing, or holding their neck in an unusual position.

Possible symptoms include:

A bulge at the back of the throat may sometimes be visible, but it is not always present. Trying to look deeply into the throat can upset a child and may worsen breathing difficulty. This examination is best left to a healthcare team with airway equipment available.

- Fever and appearing unwell
- Painful or difficult swallowing
- Drooling or refusing liquids
- Neck pain, stiffness, or swelling
- Holding the head tilted or avoiding neck movement
- A muffled or changed voice
- Noisy breathing, snoring, or breathing difficulty
- Swollen glands in the neck
- Sore throat or pain when opening the mouth
- Irritability, unusual sleepiness, or reduced activity

Causes and risk factors

Most retropharyngeal abscesses are caused by bacteria. Several types of bacteria may be present at the same time, including bacteria normally found in the mouth, nose, and throat.

Young children have lymph nodes in the tissues behind the throat. Lymph nodes are small parts of the immune system that help respond to infection. An infection from the throat, nose, sinuses, or ears can spread to these nodes and form an abscess. These particular lymph nodes become smaller as children grow, which is one reason the condition is less common later in life.

In older children and adults, possible causes include:

Factors that may make a severe infection more likely include diabetes, a weakened immune system, poor dental health, or recent neck surgery. However, a retropharyngeal abscess can occur without any known risk factor.

The abscess itself is not usually described as contagious. However, a respiratory infection that came before it may spread from person to person.

- An injury from a sharp object or swallowed foreign object
- A dental or mouth infection
- A procedure involving the throat, airway, or food pipe
- Spread from another deep infection in the neck
- Less commonly, infection involving the spine

Diagnosis

The first priority is checking breathing, swallowing, circulation, and alertness. If the airway may be narrowing, the healthcare team may begin airway treatment before arranging scans or a detailed throat examination.

A contrast-enhanced CT scan of the neck is commonly used to look for an abscess. Contrast is a substance given through a vein that helps infected tissues and blood vessels show more clearly. The scan can also show how far the infection has spread.

CT findings do not always distinguish a true pocket of pus from a phlegmon, which is severely inflamed tissue without a drainable pocket. An ear, nose, and throat specialist may need to interpret the scan together with the symptoms and examination findings. In some cases, drainage during surgery confirms that pus is present.

A side-view neck X-ray may be used when CT is not immediately available or when a child cannot safely have it at first. It may show swelling behind the throat, but positioning and breathing can affect the result. MRI provides detailed images without radiation but takes longer and may not be suitable during an airway emergency.

Blood tests can look for signs of infection and check hydration and organ function. Blood cultures may identify bacteria that have entered the bloodstream. If pus is drained, a sample is usually sent to a laboratory so treatment can be matched to the bacteria found.

Treatment and management

Treatment takes place in hospital because breathing can worsen and intravenous treatment may be needed. Care commonly involves an ear, nose, and throat specialist, a paediatric or medical team, and an anaesthesia or intensive care team when the airway is at risk.

Antibiotics like amoxicillin or doxycycline are given through a vein to cover the bacteria commonly found in deep neck infections. Treatment may be adjusted after blood or abscess culture results become available. Once symptoms are clearly improving and swallowing is safe, treatment may sometimes continue by mouth.

Other hospital care may include:

Drainage may be recommended if there is breathing difficulty, a substantial pocket of pus, spread into nearby areas, or inadequate improvement with antibiotics. It is usually performed under general anaesthesia through the mouth. An incision through the neck is occasionally needed for an abscess that cannot be reached safely through the mouth.

Some smaller collections may improve with antibiotics and careful observation without surgery. This decision is based on the airway, symptoms, scan findings, and response to initial treatment. A suspected retropharyngeal abscess should not be treated at home with leftover antibiotics or watched without medical assessment.

- Close monitoring of breathing and oxygen levels
- Fluids through a vein if swallowing is difficult
- Pain relief and fever management
- Airway support when swelling affects breathing
- Drainage of the abscess when necessary

Complications

The most immediate concern is narrowing or blockage of the airway. This may happen because of the abscess itself or swelling in the surrounding tissues.

The infection can spread downward through the deep spaces of the neck into the chest. Infection in the area between the lungs is called mediastinitis and requires urgent specialist treatment.

Other possible complications include:

These complications are not inevitable. Prompt hospital treatment lowers the risk and allows breathing changes to be managed quickly.

- Pneumonia after infected material enters the lungs

- Sepsis, an extreme body-wide response to infection
- Infection in the bloodstream
- A blood clot in a major neck vein
- Damage to nearby major blood vessels
- Spread to the spine or tissues around the brain

Prevention

There is no certain way to prevent every retropharyngeal abscess. In young children, it may develop after an ordinary respiratory infection without a clear warning that an abscess is forming.

Early assessment is important when a throat or respiratory infection is followed by worsening neck stiffness, drooling, difficulty swallowing, or unusual head positioning. Completing treatment prescribed for a diagnosed bacterial infection may reduce the chance of it continuing or spreading.

Regular dental care can reduce dental infections that may spread into deep neck tissues. Sharp objects should not be placed in the mouth, particularly during play or movement. Anyone who may have swallowed a sharp object, or who develops symptoms after a throat injury or procedure, needs prompt medical advice.

Living with it and what to expect

A retropharyngeal abscess is an acute condition rather than a long-term illness. Treatment and early recovery usually take place over days to weeks, not months or years.

During hospital care, the team will watch for easier swallowing, falling fever, improved neck movement, and stable breathing. Repeat imaging is not always needed if symptoms improve as expected. It may be considered when symptoms continue, worsen, or do not match the original scan.

After discharge, tiredness, reduced appetite, or mild throat discomfort may take time to settle. Any prescribed antibiotic course should be completed as directed. Follow-up may include checking the throat and neck, reviewing culture results, and making sure normal eating, drinking, and movement have returned.

Most people recover without lasting airway or swallowing problems when the infection is treated promptly. Recurrence is uncommon after the infection and its source have cleared. If

the condition returns, further tests may look for a retained foreign object, an unusual tract in the neck, a dental source, or an immune system problem.

When to get medical help

Call emergency services now if you or a child has:

Keep the person as calm as possible while waiting for help. Do not force food, drink, or medicine if swallowing or breathing is difficult. Do not press on the neck or try to examine deep inside the throat.

Seek urgent same-day medical assessment for fever with neck stiffness, painful swallowing, drooling, a muffled voice, refusal of liquids, or an unusual fixed head position. These symptoms have several possible causes, but a deep neck infection needs to be ruled out.

After treatment, contact the hospital team or seek prompt reassessment if fever returns, pain or swelling worsens, swallowing becomes harder, medicines cannot be kept down, or recovery is not progressing as expected. Routine follow-up should still be attended even when symptoms are improving.

- Severe trouble breathing or pauses in breathing
- High-pitched or harsh breathing sounds
- Blue, grey, or very pale lips or skin
- Inability to swallow saliva with breathing difficulty
- Collapse, confusion, or difficulty waking
- Rapidly worsening neck or throat swelling

Common questions

Is a retropharyngeal abscess contagious?

The abscess itself does not usually spread between people. However, the cold, throat infection, or other respiratory infection that came before it may be contagious.

Can a retropharyngeal abscess go away on its own?

It should not be left to resolve without treatment. Some small collections improve with hospital antibiotics alone, while others require drainage. Medical monitoring is needed because swelling can affect the airway.

How serious is a retropharyngeal abscess?

It can be serious because it is close to the airway and deep spaces of the neck and chest. Prompt treatment often leads to full recovery. Breathing difficulty, severe drooling, or reduced alertness requires emergency help.

Can adults get a retropharyngeal abscess?

Yes. It is less common in adults than in young children. Adult cases may follow a throat injury, swallowed object, dental infection, procedure, or infection elsewhere in the neck.

How long does recovery take?

The timing is different for each person. Improvement may begin after antibiotics or drainage, but swallowing, appetite, energy, and neck movement can take days or weeks to return fully. Recovery may be longer if infection has spread or complications occur.

Does every retropharyngeal abscess need surgery?

No. Some smaller abscesses or areas of inflamed tissue respond to intravenous antibiotics and close observation. Drainage is more likely when breathing is affected, there is a clear pocket of pus, infection is extensive, or initial treatment is not working.

Sources

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