CONDITION

Dacryoadenitis

Dacryoadenitis is inflammation of the tear-producing gland in the upper outer eyelid.

WHAT IT IS
Inflammation of the tear-producing lacrimal gland

BODY SYSTEM
Eyes and immune system

MAIN SYMPTOMS
Upper eyelid swelling, pain, redness, tenderness

WHAT CAUSES IT
Infection, immune inflammation, or sometimes unknown

HOW IT IS DIAGNOSED
Eye examination, orbital imaging, sometimes gland biopsy

MAIN TREATMENT
Supportive care, antibiotics, or anti-inflammatory treatment

CAN IT BE CURED?
Sometimes - acute inflammation often clears fully

IS IT AN EMERGENCY?
Sometimes - vision loss or painful eye movement

LONG-TERM OUTLOOK
Usually good, but chronic inflammation may return

Overview

Dacryoadenitis is inflammation of the lacrimal gland. This gland sits above the outer corner of each eye, beneath the bone of the upper eye socket. It makes the watery part of tears.

Inflammation can cause pain and swelling in the outer upper eyelid. The eyelid may develop a curved or "S-shaped" appearance because swelling is greater near the gland. One or both eyes may be affected.

Acute dacryoadenitis begins suddenly and is often linked to a viral or bacterial infection. Chronic dacryoadenitis develops more slowly or lasts longer. It is more likely to be associated with an immune system condition, although no cause is found in some people.

Swelling around the eye can have several causes. Some, such as infection spreading through the eye socket, need urgent treatment. Persistent or unusual swelling also needs assessment

because a lacrimal gland growth can resemble inflammation.

Dacryoadenitis is different from dacryocystitis. Dacryocystitis affects the tear drainage sac near the inner corner of the eye and nose. Dacryoadenitis affects the tear-producing gland at the upper outer corner.

Symptoms

Symptoms usually develop in the outer upper eyelid. With an acute infection, they may appear over hours or days. Chronic inflammation may cause slower, less painful swelling.

Possible symptoms include:

A severely swollen gland may push the eye downward and inward. Double vision or discomfort when moving the eye can occur if nearby tissues are involved.

Symptoms in both eyes, dry mouth, joint symptoms, breathing problems, or swelling elsewhere may suggest a condition affecting more than the lacrimal gland. These symptoms can help guide testing.

- Swelling, redness, or tenderness of the upper outer eyelid
- Pain around the outer corner of the eye
- An S-shaped curve along the upper eyelid
- Watery eyes or discharge
- Pressure or fullness above the eye
- Swollen lymph nodes in front of the ear
- Fever or feeling unwell, particularly with infection
- Dry, irritated eyes if long-term inflammation reduces tear production

Causes and risk factors

Infections commonly cause sudden dacryoadenitis. Associated viruses include mumps, Epstein-Barr virus, influenza, and other respiratory viruses. Bacterial dacryoadenitis is less common but can be more serious, particularly if pus collects in the gland or infection spreads into the eye socket.

Chronic or recurring dacryoadenitis may result from immune system inflammation. Linked conditions include Sjögren syndrome, sarcoidosis, IgG4-related disease, and granulomatosis

with polyangiitis. These can also affect other organs.

Some cases are idiopathic, meaning testing has found no specific infection, immune condition, or other explanation.

A blocked gland duct or infection spreading from nearby tissues may contribute. A weakened immune system can increase the risk of severe or unusual infections.

Not every enlarged lacrimal gland is dacryoadenitis. Benign growths and cancers, including lymphoma, can cause similar swelling. Persistent, firm, painless, one-sided, or repeatedly returning swelling needs careful assessment.

Diagnosis

A clinician will ask how quickly the swelling appeared, whether it is painful, and whether you have fever, discharge, dry eyes, or symptoms elsewhere. They will examine the eyelids, eye movements, vision, pupils, and eye position.

The swelling's location may suggest lacrimal gland inflammation, but testing may be needed to identify the cause and rule out other problems.

A CT or MRI scan can show gland enlargement and whether inflammation extends into the eye socket. Imaging can also detect an abscess, or pocket of pus, and features suggesting a growth rather than uncomplicated inflammation.

Blood tests may check for infection or immune-related inflammation. Tests are selected according to your symptoms and examination. If discharge or pus is present, a sample may be tested to identify bacteria and guide antibiotic treatment.

A biopsy may be recommended when swelling is persistent, recurrent, atypical, or not improving as expected. A small tissue sample is removed and examined under a microscope. This can identify specific inflammatory conditions and distinguish inflammation from lymphoma or another growth.

Treatment and management

Treatment depends on the cause and whether vision or nearby tissues are threatened.

Viral dacryoadenitis often improves with time. Management may include rest, fluids, warm or cool compresses, and suitable pain relief. Treatment of the infection itself may be needed in some circumstances.

Suspected bacterial dacryoadenitis is treated with antibiotics like amoxicillin or doxycycline .

Severe infection, reduced immunity, or signs that the eye socket is involved may require hospital assessment and antibiotics given into a vein. An abscess may need drainage.

Anti-inflammatory medicines, including corticosteroids like prednisone or hydrocortisone , may be used for non-infectious inflammation. Corticosteroids reduce immune activity but can make an untreated infection worse, so clinicians consider infection and other causes before prescribing them. Longer-term treatment may be needed when dacryoadenitis is part of an immune condition.

If a medicine or systemic condition is contributing, care may involve an ophthalmologist and another specialist, such as a rheumatologist.

Artificial tears or other dry-eye measures may help if the gland produces too few tears. Follow-up is important when symptoms persist, return, or affect both glands because the diagnosis or treatment may need review.

Complications

Many acute cases settle without lasting eye damage. Complications are more likely with bacterial infection, delayed treatment, or chronic immune-related inflammation.

Possible complications include:

Severe infection within the eye socket is called orbital cellulitis. It can threaten vision and requires urgent hospital treatment. It is not the same as mild redness limited to the eyelid skin.

- An abscess within or around the lacrimal gland
- Spread of infection through the eye socket
- Reduced eye movement or double vision
- Pressure on the optic nerve, which carries visual signals to the brain
- Scarring or reduced tear production
- Ongoing dry-eye symptoms
- Repeated swelling
- Effects from an underlying immune condition elsewhere in the body

Prevention

Dacryoadenitis cannot always be prevented. There is no established way to prevent idiopathic

cases or those caused by an immune condition.

Routine vaccinations can reduce the risk of some associated infections, including mumps. Handwashing and not sharing towels or eye cosmetics may help limit the spread of certain infections, although these steps cannot prevent every case.

If you have an immune-related condition, attending planned reviews and following treatment may help control inflammation.

Do not press, puncture, or try to drain a swollen area near the eye. This can injure delicate tissues or spread infection.

Living with it and what to expect

Acute viral dacryoadenitis often improves as the infection settles. Pain and redness may ease before all swelling disappears. Bacterial cases can also recover fully with treatment, although follow-up may be needed to confirm resolution.

Chronic dacryoadenitis is less predictable. Swelling may persist for months, improve with treatment, or return after a symptom-free period. The course depends on the underlying cause and how well it can be controlled.

If both glands are affected or tear production falls, dry eyes may become an ongoing concern. Lubricating treatments and regular eye reviews can help protect the eye surface. Report persistent pain, light sensitivity, or changing vision rather than assuming these symptoms are only dryness.

Some people need short-term treatment without long-term restrictions. Others require monitoring for an immune condition or repeated imaging, blood tests, or treatment changes. Recurrence does not automatically mean the condition is dangerous, but it should be reassessed.

Keep planned follow-up appointments even if discomfort improves but a lump or visible swelling remains. A gland that stays enlarged may need further imaging or a biopsy.

When to get medical help

Arrange prompt medical assessment for new swelling or pain at the upper outer eyelid, especially if it is one-sided, tender, or accompanied by fever. Eye-area swelling cannot be assessed safely without checking vision and eye movement.

Contact your usual eye or medical team for routine follow-up if:

Seek urgent same-day medical care for severe or rapidly increasing swelling, fever with worsening eye symptoms, pus, double vision, or increasing pain when moving the eye.

Go to an emergency department immediately for:

These signs may indicate pressure on eye structures or infection spreading through the eye socket. They need urgent examination rather than a routine appointment.

- Swelling is not improving as expected
- Symptoms return after treatment
- A painless lump remains after redness settles
- Both eyes become affected
- You develop ongoing dry eyes or dry mouth
- You notice new joint, sinus, breathing, or skin symptoms
- New loss, dimming, or marked blurring of vision
- Difficulty moving the eye
- A bulging or noticeably displaced eye
- Severe headache, confusion, faintness, or repeated vomiting
- Rapid swelling with serious illness or reduced alertness

Common questions

Is dacryoadenitis contagious?

The inflammation itself is not contagious. However, a virus or bacterium causing it may spread to others. Follow any infection-control advice you receive, particularly if mumps or another contagious illness is suspected.

How long does dacryoadenitis last?

Acute inflammation often improves over days to several weeks, depending on its cause and severity. Chronic or immune-related inflammation may last for months or return. Persistent swelling should be reassessed rather than managed indefinitely at home.

Can dacryoadenitis affect my eyesight?

Mild inflammation may cause watering or temporary blur without damaging vision. Vision can be threatened if severe swelling presses on the optic nerve or bacterial infection spreads through the eye socket. New vision loss, double vision, or painful eye movement needs urgent care.

Why is the outer part of my upper eyelid swollen?

The lacrimal gland is at the upper outer corner of the eye, so inflammation can cause local swelling. Allergies, eyelid infections, cysts, and lacrimal gland growths can cause similar changes. Appearance alone cannot confirm dacryoadenitis.

Will I need a biopsy?

Not everyone does. A biopsy is more likely when swelling persists, returns, has unusual imaging features, or does not respond as expected. It can identify immune-related inflammation and rule out a tumour or lymphoma.

Can dacryoadenitis come back?

Yes. Recurrence is more likely with an ongoing immune condition or when no clear cause was found. A returning episode needs assessment because the diagnosis and treatment may need reconsideration.

Sources

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