Microsporidial keratoconjunctivitis

What is microsporidial keratoconjunctivitis?

Microsporidial keratoconjunctivitis (MKC) is an infection of the eye affecting the cornea and conjunctiva. The Top End of the Northern Territory experienced its first reported cases of this infection associated with the species, *Vittaforma corneae*, in a cluster presenting during the Wet Season in early 2026. MKC infections can resolve on their own; however, symptoms can persist and worsen if not treated appropriately.

What are the signs and symptoms?

A person with MKC may experience one or more of the following eye symptoms:

- red eyes
- watery eyes
- irritation or itching
- eye pain or foreign body sensation
- blurred vision
- photophobia (sensitivity to light)
- eye discharge.

Symptoms may develop within days to several weeks after exposure to contaminated soil, mud, or pooled water. No evidence of person-to-person transmission has been observed. Symptoms are often non-specific, resembling viral and bacterial forms of conjunctivitis. MKC typically affects one eye (unilateral presentation), although both eyes can occasionally be involved.

MKC can be diagnosed by an ophthalmologist under clinical examination for fine, spore-like lesions that are scattered across the outer layer of the cornea. Laboratory testing of corneal scrapings may be used to confirm the diagnosis and, where available, identify the species.

Where are microsporidia found?

Microsporidia occur naturally in the environment and have been detected in soil, mud and water worldwide. They are most common in the tropical and subtropical regions of Asia, including India, Thailand, Singapore and China. Microsporidia can contaminate the environment when spores are shed from infected animals or humans. Opportunistic infection can occur through contact with contaminated soil, mud and water.

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Who is at risk?

During early 2026, a cluster of cases was identified in Darwin, primarily among Northern Territory Football League (NTFL) players. NTFL players reported playing on muddy grounds and often during periods of significant rain, which likely increased the risk of exposure. Most cases reported recent exposure to wet, muddy conditions.

Anyone who engages in activities involving a high level of contact with soil or mud, particularly during periods of heavy rainfall and flooding , should be aware of the risk of microsporidial infection.

How do we test for microsporidial keratoconjunctivitis?

Testing may be arranged by an ophthalmologist if microspiridial keratoconjunctivitis is suspected.

What is the treatment for microsporidial keratoconjunctivitis?

Treatment should be guided by an eye specialist (ophthalmologist). Treatment is guided by an ophthalmologist and depends on the severity and type of infection. Many cases of superficial keratoconjunctivitis resolve with supportive or topical treatment. Persistent or deeper infections may require additional specialist treatment.

How do I prevent microsporidial keratoconjunctivitis?

To reduce the risk of microsporidial eye infections, people are advised to avoid unnecessary contact with heavily muddy or waterlogged surfaces. Where participation cannot be avoided, people should regularly wash their hands and face during and after the event and avoid touching or rubbing their eyes. If mud enters the eye, rinse the affected eye immediately with clean water.

What do I do if I think I have microsporidial keratoconjunctivitis?

Seek prompt medical assessment from an optometrist, general practitioner, or eye specialist if you develop red eyes, pain, blurred vision, discharge, or sensitivity to light after exposure to soil, mud, or muddy water.

Most cases of superficial keratoconjunctivitis recover fully, although symptoms may persist for several weeks in some people.

Contact

For more information contact the Centre for Disease Control or the Royal Darwin Hospital Ophthalmology Department.

Location	Phone
Darwin (Top End Region)	(08) 8922 8044 1800 008 002
Katherine (Big Rivers Region)	(08) 8973 9049
Tennant Creek (Barkly Region)	(08) 8962 4259
Alice Springs (Central Australia Region)	(08) 8951 7540
Nhulunbuy (East Arnhem Region)	(08) 8987 0357
Royal Darwin Hospital Ophthalmology	(08) 8922 8888

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