

Cat scratch disease - Bartonella henselae

Cat scratch disease is a bacterial infection caused by *Bartonella henselae*. Cat scratch disease is transmitted by cats that have contracted the bacterium through flea droppings.

Domestic or wild cats infect humans through scratching, biting or contact of infected saliva with broken skin or mucous membranes. The most common carriers are kittens, as they do not yet have a sufficiently developed immune system, and stray cats, which are more likely to be exposed to fleas.

The infection occurs most often in children under 15 years of age. The bacterium is widespread worldwide, with most infections occurring in autumn and winter.

The cause

The bacterium that causes cat scratch disease is *Bartonella henselae*. It is found in flea droppings and is passed on to the cat when it scratches and licks itself.

Transmission

Humans are most commonly infected with cat scratch disease through scratches from domestic or wild cats, especially kittens. Cats can also infect us through a bite or by licking open wounds or broken skin, and we can introduce the bacteria into our eyes with our fingers.

Symptoms and signs of the disease

Infection can be asymptomatic or with signs of the disease. A red spot (macule) may appear at the site of infection 3–10 days after the injury and may rise above the skin level (papule). It is painless and non-itchy, may fill with fluid, be covered with scabs and heal similarly to chickenpox scarring.

Within 1–3 weeks after infection, swelling of the lymph node (lymphadenopathy) occurs near the site of the bite or scratch. It most commonly occurs under the armpits, on the neck or in the groin area. The lymph nodes are usually sensitive to touch and the skin surface may be red and warm. In rare cases, a purulent inflammation of the lymph nodes (purulent lymphadenitis) develops. The lymphadenopathy usually resolves within 2–4 months.

For most people, these are the only symptoms that indicate an infection. Associated symptoms can include fever, headache, reduced appetite, dizziness, sore throat and general feeling of being unwell. The disease is benign and resolves spontaneously in people with a strong immune system without any specific treatment.

In rare cases, infections of the conjunctiva, liver, spleen, brain, bones or heart valves also occur. Most of these infections occur mainly in people with weakened immune system.

Diagnosis

Diagnosis is established based on medical history and symptoms. Confirmation of the diagnosis is also available through serological blood tests, and in some cases, PCR testing or culture may also be performed.

Infectiousness

Cat scratch disease is not transmissible between humans. The infection is transmitted through a scratch or bite from an infected animal, and it can also occur if the saliva of an infected animal comes into contact with the eye or damaged mucous membranes.

People who have already been infected with *B. henselae* generally acquire permanent immunity.

Prevention

To prevent cat bites, scratches or licks, avoid close contact with cats, especially kittens or stray cats. Wash hands immediately after contact with a cat.

Keep cats indoors, keep them away from stray cats and consult your vet about flea prevention products.

People with weakened immune system should avoid cats under one year of age.

Treatment

In the case of mild disease, symptomatic treatment is opted for, which includes the use of anti-inflammatory and antipyretic drugs, as well as warm compresses at the site of the bite or scratch.

In immunocompromised people and in the case of a more severe course of the disease, the selected personal physician decides on antibiotic treatment.

Prognosis

In 90% to 95% of children, cat scratch disease resolves spontaneously with symptomatic treatment. In patients with widespread disease, recovery can take from a few months to a year, depending on the systems affected.