

## Occupational Health - Zoonotic Disease Fact Sheet

### CAT-SCRATCH DISEASE or CAT-SCRATCH FEVER

#### **KEY FACTS:**

- Cat-scratch disease (CSD) is a bacterial infection spread by cats.
- Cats rarely show signs of illness, but humans can develop skin lesions, fever, or in severe cases, systemic (whole body) infection.

#### **SPECIES:** Cats

**CAUSATIVE AGENT:** CSD is caused by a bacterium called *Bartonella henselae*, a rod-shaped, gram-negative organism. About 40 percent of cats carry *B. henselae* at some point in their life; in their mouths or under their claws. Kittens younger than 1 year are more likely to be infected and can spread the bacteria to people through scratches and bites while they play.

**TRANSMISSION:** Cats can get infected from flea bites and flea dirt (feces) getting into their wounds. By scratching and biting at the fleas, cats pick up the infected flea dirt under their nails and between their teeth. Cats can also become infected by fighting with other cats that are infected. The disease spreads to humans when an infected cat licks a person's open wound, sore, or scab, or bites or scratches a person hard enough to break the surface of the skin.

**DISEASE IN ANIMALS:** Most cats with *B. henselae* infection show no signs of illness, but on rare occasions this disease can cause inflammation of the heart, making cats very sick with labored breathing. *B. henselae* infection may also develop in the mouth, urinary system, or eyes, and may cause inflammation of other organs.

**DISEASE IN HUMANS:** Symptoms typically start between 3-14 days after being bitten or scratched. Symptoms include swollen lymph nodes near the site of the bite or scratch and fever. Enlarged, tender lymph nodes will develop 1–3 weeks after exposure. Individuals with a weakened immune system due to disease or medication are more likely to have complications from CSD. These complications are rare and include Parinaud's oculoglandular syndrome, an eye infection that causes inflammation of the optic nerve and can lead to blindness, and bacillary angiomatosis, a systemic illness characterized by lesions on the skin, mucosal surface, liver, spleen, and other organs.

**DIAGNOSIS:** CSD may be diagnosed presumptively in patients with typical signs and symptoms and a compatible exposure history. Serology can confirm the diagnosis, although cross-reactivity may limit interpretation in some circumstances. In general, lymph node aspiration is not recommended except to relieve severe pain and swelling or in cases where the diagnosis is unclear. *Please review current literature before prescribing diagnostic testing as recommendations may have changed.*

**TREATMENT:** Symptoms typically resolve without treatment in 2-4 months. Patients can take over-the-counter anti-inflammatory medicine, such as ibuprofen or naproxen sodium, to ease swelling and pain. The use of antibiotics to shorten the course of disease is debated as most cases of CSD resolve without treatment. Azithromycin has been shown to decrease lymph node volume more rapidly compared to no treatment. A number of other antibiotics are effective against Bartonella infections, including penicillins, tetracyclines, cephalosporins, and aminoglycosides. *Please consult your physician for treatment as recommendations may have changed.*

**PREVENTION/CONTROL:** Education regarding proper handling techniques, avoiding “rough play” with cats, and good hygiene practices such as washing hands thoroughly with soap and water after playing with or handling cats is important. Wash cuts and scratches promptly with soap and water and do not allow cats to lick open wounds. Do not pet or touch stray or feral cats. Trim cats nails frequently and use a product to prevent fleas accordingly.

More information on CSD can be found on the Centers for Disease Control and Prevention website at: <https://www.cdc.gov/bartonella/index.html>