LAHAN
Los Angeles County Health Alert Network

LAC DPH Health Advisory: Increases of Flea-Borne Typhus
August 28, 2025

County of Los Angeles Public Health

This message is intended for internal medicine, infectious disease, family medicine, pediatrics, emergency medicine, and urgent care providers. Please distribute as appropriate.

Key Messages

- Flea-borne typhus cases are increasing across LA County.
- A localized outbreak of flea-borne typhus was detected earlier this year in Central Los Angeles. Public Health is currently investigating a second outbreak in the City of Santa Monica.
- Clinicians should consider flea-borne typhus in patients of all ages with febrile illness of unknown etiology and treat promptly with doxycycline. Do not wait for laboratory confirmation.
- Flea-borne typhus is not transmitted between people. Standard contact precautions for patients should be used.

Situation

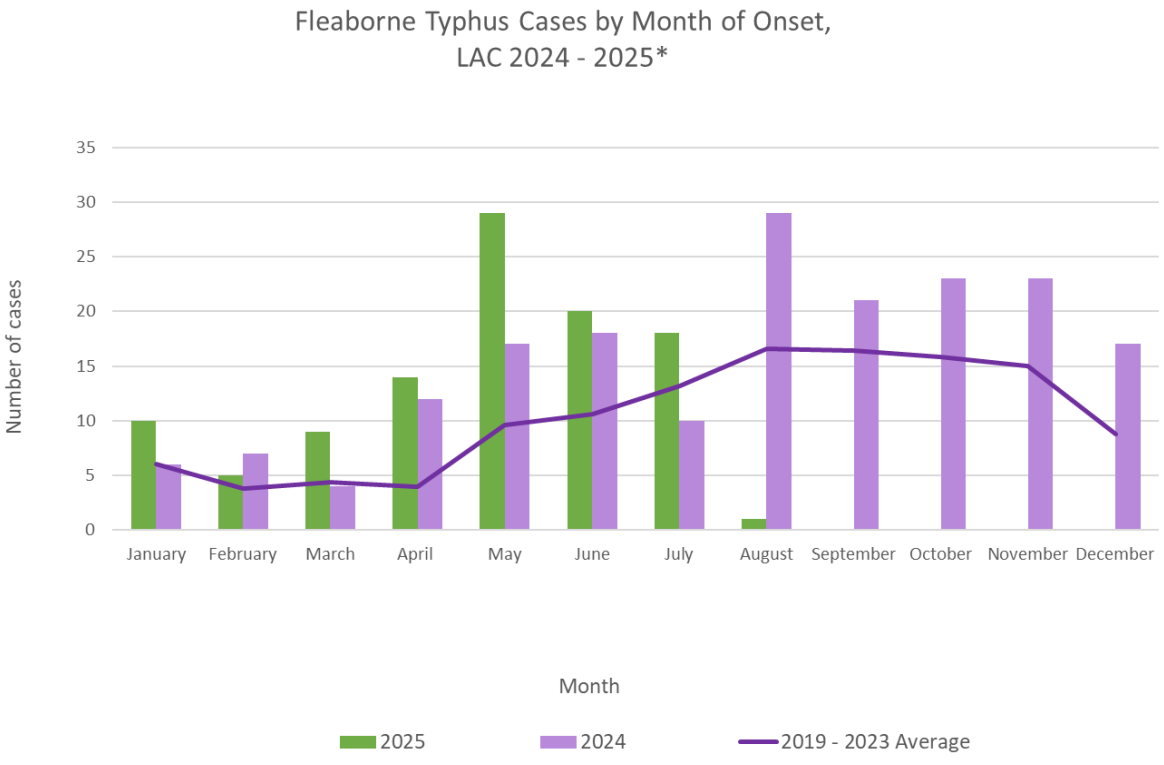
Flea-borne typhus (FBT), also known as murine or endemic typhus, is on the rise in Los Angeles County (LAC). There have already been two localized outbreaks this year to date.

Currently, DPH is investigating a FBT outbreak in the City of Santa Monica with five outbreak-associated cases. The median age for these cases is 51 years (range 16–70 years). Cases developed symptoms between May–July. All cases were hospitalized and recovered.

Earlier this year, DPH investigated a FBT outbreak with five outbreak-associated cases in Central Los Angeles. The median age for these cases was 19 years (range 17–47 years). Three of five cases were hospitalized and all recovered.

Outbreak-associated cases reported exposures to free-roaming cats, rodents, and opossums. Cases also reported having pet dogs and cats.

While FBT is endemic in the county, there has been a significant increase in the annual number of documented cases since 2010. In 2024, 187 total cases were documented, the highest case count ever in LAC. The number of cases to date in 2025 is 106, exceeding case counts from last year and well above the previous 5-year average for this time of year.



*As of 08/22/2025;
Additional cases pending investigation. Totals are provisional and subject to change.
Recent dates are incomplete due to lags in reporting.

Background

Flea-borne typhus is a disease transmitted by fleas infected with *Rickettsia typhi*. Cases are detected all year round with most cases becoming ill in the summer and fall months.

In LAC, the primary animals known to carry infected fleas include rats, free-roaming cats, and opossums. People with significant exposure to these animals are at risk of acquiring FBT. Pet dogs and cats that are allowed outside may also come in contact with infected fleas and could carry them to humans. Infected animals are not known to get sick from FBT.

Diagnosis requires a high degree of clinical suspicion as FBT typically presents as a non-specific febrile illness and early diagnostic tests are unreliable. Severe complications can occur, resulting in lengthy hospitalizations and, rarely, death.

Actions Requested of Providers

- Consider a diagnosis of FBT in patients of all ages with a non-specific febrile illness with headache, myalgia, rash, and laboratory abnormalities including leukopenia, thrombocytopenia, and elevation of hepatic transaminases, without alternate identifiable etiology.
- Treat suspect cases promptly with doxycycline; do not wait for laboratory confirmation.
- Report all cases of FBT to Public Health within 7 days of identification.

Clinical Presentation

Flea-borne typhus may be a mild, self-limited illness, or can present as severe disease requiring hospitalization. Symptoms occur 7 to 14 days after exposure, and typically include abrupt onset of fever, headache, chills, myalgia, abdominal pain, or vomiting. A maculopapular rash may appear after 1 week but may also be absent altogether.

Severe cases may result in renal, pulmonary, hematological, hepatic, ophthalmologic, cardiac, or neurologic dysfunction. Common laboratory abnormalities include leukopenia, thrombocytopenia and elevation of hepatic transaminases. Adults with advanced age or G6PD deficiency are at greatest risk for severe or fatal disease.

Diagnosis

As symptoms are non-specific and serological testing is unreliable in acute phases of infection, initial diagnosis and decision to treat should be based on clinical presentation and exposure history. Treatment for patients with suspected flea-borne typhus should not be delayed pending diagnostic tests.

Laboratory diagnosis can be conducted through serologic testing for *R. typhi* IgG and IgM antibodies. As there can be cross-reactivity with other rickettsiae, LAC DPH recommends also testing for antibodies against *R. rickettsii*, the causative agent of Rocky Mountain Spotted Fever. Serology performed on samples collected within the first week of symptom onset can often be false-negative. Confirmation of *R. typhi* diagnosis requires paired serology of acute and convalescent samples (drawn 2 weeks later) demonstrating a four-fold increase in IgG titers. However, as not all patients return for additional testing, a probable diagnosis can be made with a single positive sample plus supportive clinical and laboratory data. Rickettsial polymerase chain reaction (PCR) testing can be considered in addition to serology for definitive diagnosis.

Serological tests for *R. typhi* and *R. rickettsii* are available at most commercial laboratories. The LAC DPH PHL provides both serological and PCR testing for Rickettsia. For more information on submitting specimens to PHL, see the laboratory testing guidelines on the LAC DPH Flea-Borne Typhus Testing webpage.

Treatment

Flea-borne typhus is readily treated with antibiotics. Doxycycline is the treatment of choice for adults and children. Recommended dosages of doxycycline:

- Adults: 100 mg orally BID
- Children under 45 kg (100 lbs.): 2.2 mg/kg body weight given twice a day.

Patients should be treated for at least 3 days after the fever subsides and until there is evidence of clinical improvement (usually 7–10 days).

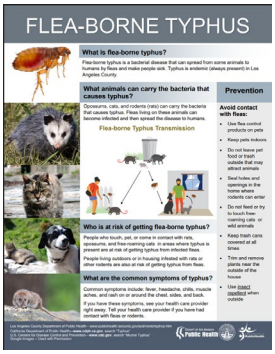
Treat suspect cases promptly; do not wait for laboratory confirmation.

Prevention

Counsel patients on how to reduce exposure to infected fleas including the following:

- Use flea control products for domestic pets.
- Avoid petting or feeding free-roaming animals.
- Store trash and other food sources in secured bins and/or clear it away from places of residence to avoid attracting animals.
- Discourage animals from nesting around the home by closing up crawl spaces and attics and trimming or removing vegetation around buildings.
- When outside, use EPA–registered insect repellents.

Visit the LAC DPH Flea-Borne Typhus webpage for patient FAQ, flea prevention guidance, and other resources.



FBT Flyer: English | Spanish

Transmission and Infection Control

Person-to-person transmission does not occur. Humans are a dead-end host for flea-borne typhus. Standard precautions are indicated.

Patients should contact their local animal control agency to report feral cats and opossums and any other wild animal concerns.

Reporting

Providers should report flea-born typhus cases to LAC DPH within 7 calendar days of identification.

- Fax a CMR to 888-397-3778 or 213-482-5508 or send via secure email to RPU@ph.lacounty.gov, or
- Call 888-397-3993 weekdays 8:00 am–4:30 pm.
- For consultation call 213-240-7941 8:00 am-5:00 pm

For residents of Long Beach, Pasadena, or other jurisdictions outside LA County, visit "Where and how to report".

Resources

- Los Angeles County Department of Public Health Flea-borne Typhus webpage www.publichealth.lacounty.gov/acd/VectorTyphus.htm
- California Department of Public Health Flea-borne Typhus webpage www.cdph.ca.gov/Programs/CID/DCDC/Pages/Typhus.aspx

- Centers for Disease Control and Prevention Murine Typhus webpage www.cdc.gov/typhus/hcp/clinical-overview/clinical-overview-of-murine-typhus.html

This Health Advisory was sent by Dr. Sharon Balter, Director, Division of Communicable Disease Control and Prevention, Los Angeles County Department of Public Health.

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