



# EPI WATCH

Monthly Epidemiology Newsletter

## *Rickettsia parkeri* Rickettsiosis

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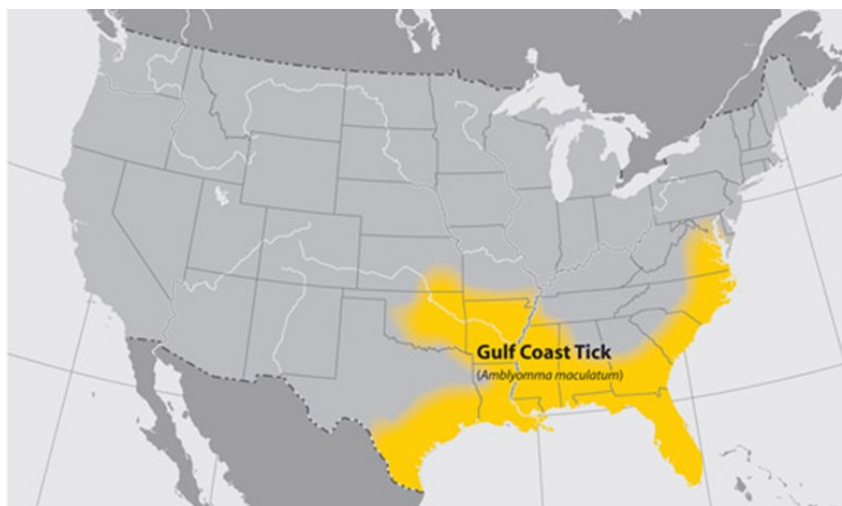
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Spotted fever group *Rickettsia* include a group of bacteria that can infect humans through the bite of an infected tick. Common signs and symptoms of these infections include an eschar, or scab, at the site of the tick bite, fever, headache, rash, and muscle aches<sup>1</sup>. One bacterium in this group, *Rickettsia parkeri*, was first isolated from the Gulf Coast tick in Texas in 1939. The Gulf Coast tick is primarily distributed across the southeastern United States, including Florida, but has also been found sporadically in northern and western states like Maine and Iowa.

After its discovery in 1939, it was unknown whether *R. parkeri* was pathogenic to humans, but it was shown to result in a mild febrile illness in guinea pigs. In 2004, the first known human case of *R. parkeri* rickettsiosis was reported in the state of Virginia<sup>2</sup>. Since then, cases of *R. parkeri* rickettsiosis have been identified across the United States, as well as several countries throughout Central and South America<sup>3</sup>. Although additional cases have been reported since 2004, there is still much to be learned about this bacterium and its potential reservoirs. The Gulf Coast tick is considered to be the primary vector for *R. parkeri*, however at least 18 other tick species across eight countries have shown to be competent vectors as well<sup>3</sup>. The true prevalence and geographic spread of infection is likely under reported due to gaps in surveillance and non-specific diagnosis of rickettsial infection. Since 2007, cases have been reported in northern Florida, in known Gulf Coast tick habitats<sup>4</sup>. Those with rickettsial infections, including *R. parkeri* rickettsiosis, should be properly treated with the antibiotic doxycycline<sup>1</sup>.

The best way to prevent rickettsial infection is to avoid tick bites. Although ticks can be found any time of year, they are most active between the months of April through September<sup>1</sup>. Avoiding exposures to tick habitats, such as brushy or wooded areas, can lessen the risk of bites. However, additional precautions such as wearing long sleeves and pants to cover exposed skin and using EPA-registered insect repellent can also deter ticks<sup>5</sup>. Additionally, pets can be a potential source of infection if ticks are brought into the home, where they can then bite people. Performing daily tick checks on pets and speaking with a veterinarian about the use of tick preventive products is another way to lessen the risk of rickettsial infection.



Retrieved from: [https://www.cdc.gov/ticks/maps/gulf\\_coast\\_tick.pdf](https://www.cdc.gov/ticks/maps/gulf_coast_tick.pdf)

### References:

<sup>1</sup> <https://www.cdc.gov/other-spotted-fever/about/index.html> <sup>2</sup> <https://academic.oup.com/cid/article/38/6/805/319578> <sup>3</sup> <https://www.mdpi.com/2076-0817/10/5/592> <sup>4</sup> <https://www.floridahealth.gov/diseases-and-conditions/rickettsia-parkeri/index.html> <sup>5</sup> <https://www.cdc.gov/ticks/prevention/index.html>

# Increase in Pertussis Cases

By: Brooke Walter, MPH, CPH

Pertussis (whooping cough) is a bacterial infection that causes spasms of severe coughing which may be followed by an inspiratory “whooping” sound, vomiting, or difficulty breathing. These coughing spasms often last one to six weeks but can continue for up to ten weeks after onset. Pertussis can cause severe infection in infants and people with weakened immune systems, including pregnant women.

Prior to the COVID-19 pandemic, an average of 10,000 cases of pertussis were reported across the U.S. each year<sup>1</sup>. During the pandemic, cases of pertussis dropped below average levels, likely due to cross-protective measures. Pertussis cases are increasing nationally, and this trend has been observed in Pinellas and across the state<sup>2</sup>. Pinellas has had a total of 21 reported cases as of November 2024, compared to 1 reported case in November 2023.

Pertussis spreads in the air by respiratory droplets produced from coughing, sneezing, or talking, or through direct contact with these respiratory secretions. Pertussis is a highly contagious illness best prevented by vaccination. The DTaP (diphtheria-tetanus-acellular pertussis) immunization is a five-dose series administered at ages 2 months, 4 months, 6 months, 15-18 months, and 4-6 years. The Tdap booster is recommended between ages 11-12 to extend protection. Adults should receive a Tdap booster every 10 years, and pregnant women should receive a booster during each pregnancy to pass along protection to their baby until they are old enough to receive their first dose<sup>3</sup>. Immunizations are available through the Florida Department of Health in Pinellas County (DOH-Pinellas) on a walk-in basis.

Pertussis cases are reportable in Florida 24/7 upon positive lab result and should be reported by the diagnosing provider. Please contact DOH-Pinellas Epidemiology Program at 727-824-6932 with questions or concerns.

## References:

<sup>1</sup><https://www.cdc.gov/pertussis/php/surveillance/index.html>

<sup>2</sup><https://www.flhealthcharts.gov/charts/default.aspx>

<sup>3</sup><https://www.cdc.gov/pertussis/vaccines/index.html>



Retrieved from:

<https://www.cdc.gov/pertussis/about/index.html>

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## CDC HAN 519: First Case of Clade I Mpox Diagnosed in the United States



The Centers for Disease Control and Prevention (CDC) is issuing this Health Alert Network (HAN) Health Advisory to provide information about the first case of clade I mpox diagnosed in the United States and recommendations to clinicians about preventing, diagnosing, treating, and reporting mpox cases. On November 15, 2024, the California Department of Public Health (CDPH) confirmed the first reported case of clade I mpox in the United States. This individual had recently traveled to areas experiencing clade I monkeypox virus (MPXV) transmission and

sought medical care for mpox symptoms in the United States. Consistent with other recent clade I mpox cases, the patient has relatively mild illness and is recovering. CDC and the local and state health departments are investigating potential contacts; no additional cases in the United States have been detected as of November 18, 2024. The risk of clade I mpox to the public in the United States remains low.

Clinicians should be aware of mpox symptoms, ask patients with comparable signs and symptoms about recent travel history and other risk factors for mpox, and consider MPXV testing. Follow CDC guidance on mpox infection prevention and control to minimize transmission risk when evaluating and providing care to patients with suspected mpox.

For more information, please visit: <https://www.cdc.gov/han/2024/han00519.html>

# Select Reportable Diseases in Pinellas County

Disease	Pinellas		YTD Total		Pinellas County Annual Totals		
	Oct 2024	Oct 2023	Pinellas 2024	Florida 2024	2023	2022	2021
<b>A. Vaccine Preventable</b>							
Coronavirus 2019	662	1348	18768	402148	25494	119171	103400
Measles	0	0	0	12	0	0	0
Mpox	5	0	12	179	6	162	0
Mumps	0	0	1	10	0	0	1
Pertussis	5	0	20	511	1	2	1
Varicella	0	2	171	607	25	24	25
<b>B. CNS Diseases &amp; Bacteremias</b>							
Creutzfeldt-Jakob Disease (CJD)	0	0	3	18	1	3	1
Meningitis (Bacterial, Cryptococcal, Mycotic)	2	1	15	114	6	12	5
Meningococcal Disease	0	0	1	25	3	2	1
<b>C. Enteric Infections</b>							
Campylobacteriosis	20	12	194	4639	224	208	213
Cryptosporidiosis	3	1	26	474	28	38	28
Cyclosporiasis	1	0	7	218	11	21	9
<i>E. coli Shiga Toxin (+)</i>	5	5	26	921	37	28	16
Giardiasis	3	7	47	1108	40	34	29
Hemolytic Uremic Syndrome (HUS)	0	0	1	22	2	0	0
Listeriosis	0	0	1	36	2	3	3
Salmonellosis	27	27	192	7175	194	174	182
Shigellosis	4	2	38	1046	56	37	37
<b>D. Viral Hepatitis</b>							
Hepatitis A	0	0	1	91	1	20	6
Hepatitis B: Pregnant Woman +HBsAg	0	1	4	395	17	20	10
Hepatitis B, Acute	5	4	24	665	37	33	51
Hepatitis C, Acute	4	4	64	1432	106	120	91
<b>E. Vectorborne/Zoonoses</b>							
Animal Rabies	0	0	1	100	1	0	0
Rabies, possible exposure	18	30	213	6314	227	151	135
Chikungunya Fever	0	0	1	13	0	0	0
Dengue fever	1	0	7	825	5	7	0
Eastern Equine Encephalitis	0	0	0	0	0	0	0
Lyme Disease	1	2	15	225	21	11	7
Malaria	0	0	2	58	4	4	2
West Nile Virus	1	0	1	17	0	0	0
Zika Virus Disease	0	0	0	0	0	0	0
<b>F. Others</b>							
Hansen's Disease	0	0	1	18	1	0	0
Legionellosis	7	2	29	559	16	38	36
Mercury Poisoning	0	0	0	17	0	0	2
Tuberculosis	1	0	21	283	22	21	24
<i>Vibrio Infections</i>	15	0	30	307	13	0	0
<b>G. Sexually Transmitted Infections</b>							
	Pinellas		YTD Total		Pinellas County Annual Totals		
	Oct 2024	Oct 2023	Pinellas 2024	Pinellas 2023	2022	2021	2020
Chlamydia	296	386	3079	3200	4032	4090	3953
Gonorrhea	148	182	1385	1317	1753	1883	1634
Syphilis, Total	49	53	450	512	762	634	466
Syphilis, Infectious (Primary and Secondary)	24	31	216	272	348	274	212
Syphilis, Early Latent	9	14	113	156	275	239	159
Syphilis, Late Syphilis (Late Latent; Neurosyphilis)	16	6	117	79	134	114	91
Syphilis, Congenital	2	2	4	5	5	7	4

\*YTD up to October 31, 2024. n/a = not available at this time

\*\*includes travel and non-travel associated cases