



**TULSA HEALTH
DEPARTMENT**

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Disease of the Month: Tickborne Illnesses

Three primary diseases are transmitted to a human from a tick bite. They are Rocky Mountain Spotted Fever, Lyme Disease and Ehrlichiosis.

Rocky Mountain Spotted Fever (RMSF)

RMSF is the most severe tickborne illness in the US. It is an infection from a bacterial organism. Signs of illness start about 5–10 days after the initial tick bite. Symptoms include:

- * Fever
 - * Nausea and vomiting
 - * Muscle pain
 - * Severe headache
 - * Lack of appetite
- Later symptoms include:
- * Rash
 - * Abdominal pain
 - * Diarrhea

Majority of patients with RMSF are hospitalized.

Lyme Disease

This is an illness caused by the bacteria *Borellia burgdorferi*.

Lyme disease is maintained in the blood systems and tissues of ticks. Anywhere from a few days to weeks following a tick bite, 80% of people will see a red 'bull's-eye' rash along with:

- * Tiredness
- * Fever
- * Headache
- * Muscle aches
- * Stiff neck
- * Joint pain



If untreated, weeks to months later patients could develop:

- * Arthritis
 - * Episodes of swelling and pain in large joints
- The incubation period for Lyme Disease is 7-14 days following exposure.

Ehrlichiosis

This is a general name used to describe many bacterial diseases that affect animals and humans. In the US, Ehrlichiosis is caused by an infected tick bite. Symptoms

usually appear 5-10 days after the initial bite and may resemble symptoms of other common infections such as:

- * Fever
- * Headache
- * Fatigue
- * Muscle aches
- * Nausea and vomiting
- * Cough
- * Diarrhea
- * Joint pain
- * Confusion
- * Occasionally rash

It is possible that many people will not become ill or may develop only mild symptoms if infected by Ehrlichiosis.

If you or someone you know has a tick bite and develops any of the above symptoms contact your doctor to determine what treatments are available for you.

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Special Points of Interest

Did you know?

- Ticks are abundant in Oklahoma and commonly feed on humans and other animals. Although only a small percentage of these ticks are infected with disease causing bacteria, numerous tickborne illnesses including Rocky Mountain Spotted Fever, ehrlichiosis, and tularemia are reported each year.

TIPS: Tick Removal

Both attached and unattached ticks should be completely removed from humans and pets. Proper removal of ticks should be followed to make sure both the head and the body are removed as to avoid infection. The following are recommended procedures to remove a tick.

- Using tweezers, grasp the tick close to the surface of the skin.

- Pull slowly and steadily without jerking, twisting or crushing the tick.
- Do NOT use nail polish remover, alcohol or heat for tick removal.
- Apply antiseptic on the site of the bite.
- Do NOT use other methods for tick removal.

- Make a note on your calendar of the day the tick was removed.

- Wash clothing and inspect the body for any additional ticks.

If you do have a tick bite, here is some general treatment information to follow:

- If a fever or headache develops after coming in

contact with a tick, seek medical attention immediately.

- Early treatment is important and only a doctor can prescribe the antibiotics necessary to fight infection.
- Be sure to inform the doctor of the tick exposure and date.

CURRENT NEWS

The Oklahoma State Department of Health (OSDH) is investigating an outbreak of gastroenteritis among persons who attended the TALON Conference on April 18th through 20th, 2007 held at the Sheraton Hotel in Oklahoma City, Oklahoma. OSDH is conducting an epidemiologic investigation to determine the etiologic agent and source. Registration information indicates you were a participant of the TALON Conference. OSDH is asking all TALON participants to complete a survey located on SurveyMonkey.com. Please click on the following link to access the survey:

<http://www.surveymonkey.com/User/s/29714044/Surveys/376183769451/360A6E93-0512-448E-A9CE-0196758B2171.asp?U=376183769451>

OSDH is asking both ill and non-ill persons to answer questions about foods consumed and other activities related to the conference. Your help is greatly appreciated, and all the collected information will be kept strictly confidential. Currently, the SurveyMonkey website is not compliant with newer assistive technologies. Individuals needing assistance should feel free to call 1-800-234-5963 24 hours/day, 7 days/week to conduct a personal confidential interview with an OSDH Acute Disease Service epidemiologist.

The Tulsa Health Department collects Emergency Room chief complaint data to monitor the emergence of illnesses, such as influenza, in our community through the Tulsa Area Syndromic Surveillance System (TASSS). For additional information on THD's county-wide surveillance system please [click here](#)

REPORTED CASES OF SELECTED DISEASES

Disease	Tulsa County		Oklahoma	
	Cases Reported Year-to-Date 2007	Cases Reported Year-to-Date 2006	Cases Reported Year-to-Date 2007	Cases Reported Year-to-Date 2006
<i>Campylobacter</i>	9	7	71	73
<i>E. coli</i> O157:H7	0	0	7	6
<i>Giardia</i>	3	6	27	29
Hepatitis A	0	2	3	3
Hepatitis B	39	7	24	44
Hepatitis C	117	162	103	644
Rabies (Animal)	0	1	35	21
<i>Salmonella</i>	13	17	86	78
<i>Shigella</i>	7	0	15	29

Discrepancies between state and county numbers may result from cases being reported directly to the county.

Surveillance Report: What is Surveillance?

Traditionally, local and state health departments have relied on a passive surveillance system for data gathering. With passive surveillance, health departments do not actively seek disease information; they instead, rely on physicians, laboratories, and other reporting agencies to provide information to the health department at their convenience. While low cost and ease of use are tangible benefits associated with using this type of surveillance, there are equally compelling reasons why health departments cannot rely solely on passive surveillance if they hope to get a true picture of what is occurring in their communities.

In January 2002, Tulsa Health Department (THD) implemented a new surveillance system, known as syndromic surveillance. THD's most innovative syndromic surveillance system has been the Tulsa Area Syndromic Surveillance System (TASSS). TASSS collects patient-reported chief complaints from local emergency rooms. Data is collected and analyzed daily and is then disseminated to local partners for comparisons to their own surveillance systems. This comprehensive approach enhances the community's defense against the emergence of diseases and other health-related occurrences. The primary objectives of TASSS are:

- To detect occurrences of overt biological terrorist attacks;
- To actively seek information from physicians, laboratories, and other reporting agencies, instead of simply waiting for these entries to report information.
- To detect and track emerging pathogens; and
- To detect foodborne and waterborne outbreaks.

To a lesser extent, TASSS serves as an intermediary between local healthcare and emergency partners as it fosters information sharing and communication and collective preparation for emergencies.

In addition to TASSS, the Tulsa Health Department also has the following:

School Absentee Surveillance System—Through a partnership with the local public school systems this system is designed to monitor seasonal absenteeism rates within Tulsa County.