

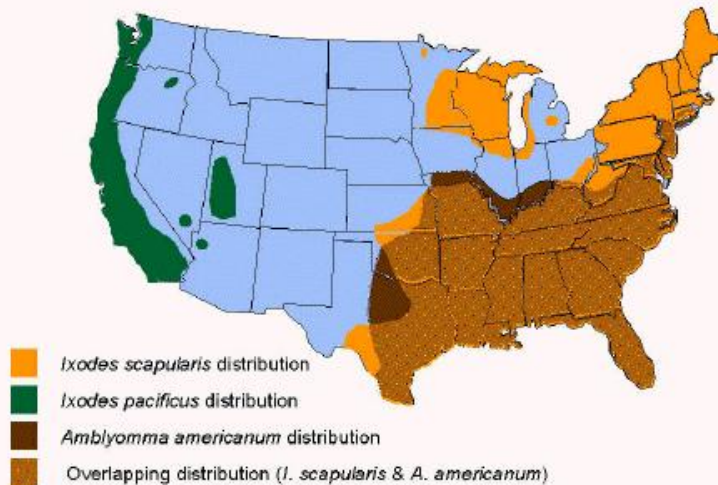
Ehrlichiosis

What is ehrlichiosis?

Ehrlichiosis is a tick-borne disease which can be caused by either of two different Ehrlichia bacteria. Human Monocytic Ehrlichiosis (HME) is caused by Ehrlichia chaffeensis, which is transmitted by the lone-star tick (Amblyomma americanum). Human Granulocytic Ehrlichiosis (HGE) is caused by an Ehrlichia equi-like bacteria that is transmitted by the deer tick (Ixodes scapularis).

Human ehrlichiosis due to *Ehrlichia chaffeensis* occurs primarily in the southeastern and south central regions of the United States and is primarily transmitted by the lone star tick.

Areas where human ehrlichiosis may occur based on approximate distribution of tick species



Who gets ehrlichiosis?

Anyone can get ehrlichiosis, although the majority of known cases have been in adults. People who spend time outdoors in tick-infested areas from April until October are at greatest risk for exposure.

How is ehrlichiosis transmitted?

Ehrlichiosis is transmitted by the bite of infected ticks, including the deer tick and the lone star tick. Ehrlichiosis cannot be spread from person-to-person.

What are the symptoms of ehrlichiosis?

The symptoms of HME and HGE are the same and usually include fever, muscle aches, weakness and headache. Patients may also experience confusion, nausea, vomiting and joint pain. Unlike Lyme disease or Rocky Mountain spotted fever, a rash is not common. Infection

usually produces mild to moderately severe illness, with high fever and headache, but may occasionally be life-threatening or even fatal

When do symptoms appear?

Symptoms appear typically appear within 5-10 days following the bite of an infected tick bite, but can appear anywhere from one to three weeks after a person is bite by an infected tick.

What is the treatment for ehrlichiosis?

Tetracycline antibiotics are usually rapidly effective for ehrlichiosis. Because these antibiotics can cause dental staining in children, physicians should consult an infectious disease expert when treating children.

What can be done to prevent ehrlichiosis?

In tick infested areas, limiting exposure to ticks reduces the likelihood of infection. However, it is unreasonable to assume that a person can completely eliminate activities that may result in tick exposure. Therefore, prevention measures should be aimed at personal protection:

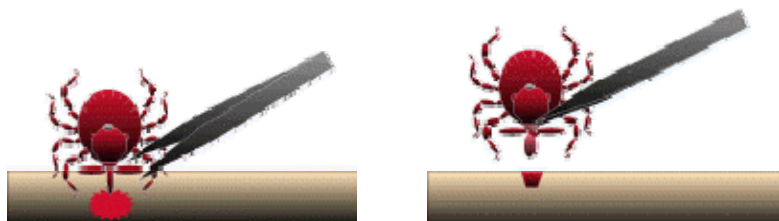
- Prompt careful inspection of your body and removal of crawling or attached ticks is an important method of preventing disease. It may take 24–48 hours of attachment before microorganisms are transmitted from the tick to you.
- Tuck the bottom of pant legs into socks so that ticks cannot crawl up the inside of your pants.
- Wear light-colored clothing...this will allow you to see ticks that are crawling on your clothing.
- Apply repellants to discourage tick attachment. Repellents containing permethrin can be sprayed on boots and clothing and will last for several days. Repellents containing DEET (n, n-diethyl-m-toluamide) can be applied to the skin, but will last only a few hours before reapplication is necessary. Read and follow the label on the DEET spray.

How should a tick be removed?

To remove attached ticks, use the following procedure:

Step – 1: Use fine-tipped tweezers or shield your fingers with a tissue, paper towel, or rubber gloves.

Step – 2: Grasp the tick as close to the skin surface as possible and pull upward with steady, even pressure. Do not twist or jerk the tick; this may cause the mouthparts to break off and remain in the skin. *(If this happens, remove mouthparts with tweezers. Consult your healthcare provider if infection occurs.)*



Step – 3: Do not squeeze, crush, or puncture the body of the tick because its fluids (saliva, hemolymph, gut contents) may contain infectious organisms.

Step – 4: Do not handle the tick with bare hands because infectious agents may enter through mucous membranes or breaks in the skin.

Step – 5: After removing the tick, thoroughly disinfect the bite site and wash your hands with soap and water.

Step – 6: You may wish to save the tick for identification in case you become ill within 2 to 3 weeks. Your doctor can use the information to assist in making an accurate diagnosis. Place the tick in a plastic bag and put it in your freezer. Write the date of the bite on a piece of paper with a pencil and place it in the bag.

Myths: Remedies such as petroleum jelly or hot matches do little to encourage a tick to detach from the skin. Such remedies may actually make it worse by irritating the tick, causing it to release more saliva, increasing the chances of transmitting infection. Avoid using such methods.

Where can I get more information?

- Your personal doctor
- Your local health department, listed in your telephone directory
- The Utah Department of Health, Office of Epidemiology (801) 538-6191

UTAH DEPARTMENT OF HEALTH
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