TICK BITE AND REMOVAL

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Ticks are small parasites that complete their life cycle by attaching to suitable hosts and having a blood meal. Hard ticks have four life stages – egg, six-legged larvae, eight-legged nymph, and adult. The larvae typically feed on small mammals where they can acquire a bacterial, viral, or parasitic disease. The nymphs and adults then feed on larger hosts, including humans, and spread the disease. Ticks are found world-wide and most infections occur in the spring and summer as the larvae are evolving into adults.

There are 18 known diseases spread by ticks in the United States. Some of the most common tick-borne illnesses include: **Lyme disease**, **Rocky Mountain Spotted Fever**, anaplasmosis, babesiosis, ehrlichiosis, Southern Tick-Associated Rash Illness, Tick-Borne Relapsing Fever, and tularemia. The geographic location of the tick species impacts disease in humans. For example, ehrlichiosis is most often seen in the southeast and south-central United States, which is the known geographic location of the lone star tick.

Most ticks do not carry a disease, and if they do, it does not guarantee that you will become infected after a bite. The hard tick may need to be attached for hours before the disease can be transmitted. In the case of Lyme disease, the risk of contracting the disease is low if the tick has been attached for less than 24 hours.

If you do see a tick attached to your skin, it should be removed immediately. The best removal method is to grab the tick as close to the skin as possible with a pair of fine-tipped tweezers. Pull upwards with even pressure and avoid twisting motions, as this can lead to the mouth parts breaking off and remaining embedded in the skin. There are many folklore methods for tick removal that are ineffective and may even increase the likelihood of disease transmission. The application of petroleum jelly or burning of the tick should not be done because it can encourage the tick to release the infection through their saliva.

The symptoms after a tick bite differ based on the particular disease the tick was carrying. Symptoms can range from mild and self-limited to prolonged and life-threatening. Be aware of flu-like symptoms, fever, muscle aches, joint pain, headache, neck stiffness, rash, facial palsy, or palpitations. Interestingly, a tick bite can cause an allergy to red meat.

Your doctor can decide what testing or treatment is necessary after a tick bite. Antibiotics are used in the case of a bacterial infection. In highly endemic areas, antibiotics can be used as prophylaxis.

When spending time outdoors in wooded or grassy areas, several measures can be taken to help prevent tick attachment. Wear light colored clothing so ticks can be seen easily. Check for ticks every 2-3 hours when outdoors and remove them immediately. Tuck long pants into socks to prevent the ticks from crawling up the pant leg. Apply DEET-containing repellants to exposed skin and permethrin products to clothing. After coming indoors, bathe or shower within 2 hours and wash your clothes in hot water or dry on high heat. Tick prevention for pets is also important in limiting disease spread.