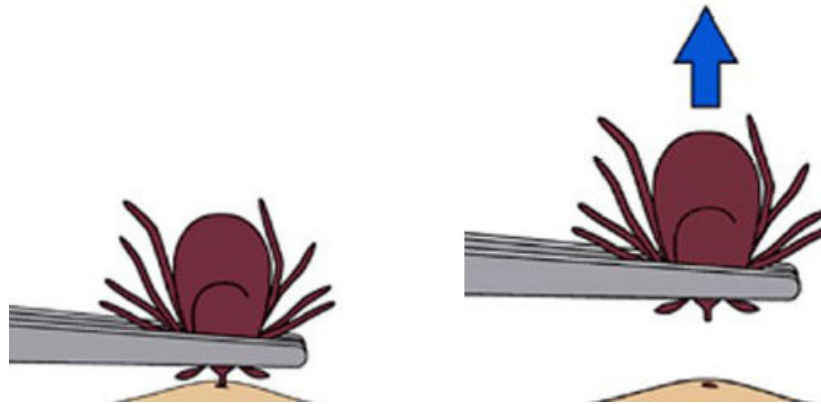


## Ticks

### How to remove a tick

1. Use fine-tipped tweezers to grasp the tick as close to the skin's surface as possible.
2. Pull upward with steady, even pressure. Don't twist or jerk the tick; this can cause the mouth-parts to break off and remain in the skin. If this happens, remove the mouth-parts with tweezers. If you are unable to remove the mouth parts easily with clean tweezers, leave it alone and let the skin heal.
3. After removing the tick, thoroughly clean the bite area and your hands with soap and water. Wipe the bite area with alcohol.
4. Dispose of a live tick by wrapping it tightly in tape, placing it in a sealed bag, flushing it down the toilet, or submersing it in alcohol. Never crush a tick with your fingers.



**Avoid folk remedies** such as covering the tick with nail polish or petroleum jelly, or using heat (a match or cigarette) to make the tick detach from the skin. Your goal is to remove the tick as quickly as possible not waiting/hoping for it to detach.

### What are the signs of a tick-borne illness?

Tick-borne diseases can range from mild symptoms treatable at home to severe infections requiring hospitalization. Although treatable with antibiotics, these diseases can be difficult for physicians to diagnose. See your doctor right away if you have been bitten by a tick and experience any of the symptoms described here.

If you have been bitten by a tick and develop the symptoms below within a few weeks of the tick bite, you should consult with your doctor. Many tick-borne diseases can have similar signs and symptoms. Illness usually begins within a few weeks of tick bite. The most common symptoms of tick-related illnesses are:

Fever/chills: With all tick-borne diseases, patients can experience fever with a varied time of onset.

Aches and pains: Headache, fatigue, and muscle aches are all possible. With Lyme disease you may also experience joint pain. The severity and time of onset of these symptoms can depend on the disease and the patient's personal tolerance level.

Rash: Lyme disease, southern tick-associated rash illness (STARI), Rocky Mountain spotted fever (RMSF), ehrlichiosis, and tularemia can result in distinctive rashes:

- In Lyme disease, the rash may appear within 3-30 days, typically before the onset of fever. The Lyme disease rash is the first sign of infection and is usually a circular “bulls eye” rash called erythema migrans or EM. This rash occurs in approximately 70-80% of infected persons and begins at the site of a tick bite. It may be warm, but is not usually painful. Some patients develop additional EM lesions in other areas of the body several days later.
- The rash of (STARI) is nearly identical to that of Lyme disease, with a red, expanding “bulls eye” lesion that develops around the site of a lone star tick bite. Unlike Lyme disease, STARI has not been linked to any arthritic or neurologic symptoms.
- The rash seen with Rocky Mountain spotted fever (RMSF) varies greatly from person to person in appearance, location, and time of onset. About 10% of people with RMSF never develop a rash. Most often, the rash begins 2-5 days after the onset of fever as small, flat, pink, non-itchy spots (macules) on the wrists, forearms, and ankles and spreads to the trunk. It sometimes involves the palms and soles. The red to purple, spotted (petechial) rash of RMSF is usually not seen until the sixth day or later after onset of symptoms and occurs in 35-60% of patients with the infection.
- In the most common form of tularemia, a skin ulcer appears at the site where the organism entered the body. The ulcer is accompanied by swelling of regional lymph glands, usually in the armpit or groin.
- In about 30% of patients (and up to 60% of children), ehrlichiosis can cause a rash. The appearance of the rash can vary widely and may appear after the onset of fever.

Tick paralysis is a rare disease thought to be caused by a toxin in tick saliva. The symptoms include acute, ascending, flaccid paralysis that is often confused with other neurologic disorders or diseases (e.g., Guillain-Barré syndrome or botulism). Within 24 hours of removing the tick, the paralysis usually subsides.

[http://www.cdc.gov/ticks/removing\\_a\\_tick.html](http://www.cdc.gov/ticks/removing_a_tick.html)