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Tick invasion in Switzerland

Ticks are found almost throughout Switzerland. They are most common along the German and Austrian border, throughout the German speaking part of Switzerland and in parts of Canton Neuenburg; tick free are at the moment just the Valais and the Tessin. Ticks are found worldwide; more than 800 species of these bloodsucking creatures inhabit the planet.

Ticks feed by perching in low vegetation and waiting for a susceptible host on which they can attach and feed. Once on a host, the tick attaches its hypostome, a central piercing element with hooks, into the host's skin. Some ticks secrete a cementing material to fasten themselves to the host. In addition, Ixodes ticks secrete anticoagulant, immunosuppressive, and anti-inflammatory substances into the area of the tick bite. These substances presumably help the tick to obtain a blood meal without the host's noticing.

The larvae hatch from eggs in summer and begin seeking hosts in August. These ticks have only 6 legs and are the size of the fullstop at the end of this sentence. If the larvae do not find a host for a meal of blood, they die. The preferred host is the mouse. Larvae that have successfully fed then fall off the host and live in the soil and decaying vegetation over winter. Late next spring, most often in May and June, the larvae moult into 8-legged nymphs. These nymphs are quite small and seek their meal of blood from a small vertebrate. Humans may be infected as accidental hosts at this point in the cycle. Then, the nymph lives in the soil to moult into an adult tick in autumn. And the cycle goes on: They perch in low vegetation and wait...

How to deal with ticks

Personal strategies include avoiding grassy areas with shrubs that attract ticks, wearing white or light-colored clothing so that attached ticks can be seen easily and removed, tucking pant legs into socks, walking in the center of paths to avoid vegetation on which ticks lie in wait of a host, applying lotion containing diethyltoluamide to the skin (avoiding face and hands). Very important is to perform daily tick checks with the help of a partner. Ticks should be removed immediately when detected even out in the field.

Tick removal

Tick removal is best accomplished by grabbing the tick as close to the skin as possible with a very fine forceps or long finger nails and pulling it gradually, but firmly, out from the skin. The bite site should be thoroughly disinfected with alcohol or another antiseptic solution. Care should be taken to avoid squeezing the tick during removal, since squeezing may inject infectious material into the skin. The use of gasoline, petroleum and other solvents to suffocate ticks, as well as burning the tick with a match, should be avoided. Often, the complete mouthparts do not come out with the rest of the tick. Leaving these in does not increase the risk of disease transmission, but they may cause a local infection or foreign body reaction.

Prophylactic measures

Most tick bites do not result in an infection. In the case of Lyme Borreliose disease, caused by bacteria, only about 2-5% of all persons bitten by ticks in endemic areas develop Lyme Borreliose disease. Early summer Meningoencephalitis, caused by a virus, is even much less frequent.

In Switzerland, vaccination (against Meningoencephalitis), is highly recommended for people who are regularly out in the woods.

When to go to the doctor

Remember, only a small percentage of ticks carry diseases and can cause health problems. If you have the following symptoms within days or weeks after being bitten by a tick, report them to your family doctor immediately. Tell your doctor when and where a tick bit you.

1. General symptoms of fever, headache, muscle and joint pains, fatigue or weakness of facial muscles.

2. Skin rash, especially one that looks like a bull's eye. It may or may not be where the bite was.

In some cases paralysis may occur. The paralysis usually starts in the feet and legs and works its way up to the upper body, arms and head. This paralysis usually starts within a few hours to a day or two of the bite.

Paul Werthmüller



