About the diseases: symptoms and treatments

Please contact your doctor if you experience any of the symptoms below.

**Lyme borreliosis** symptoms occur usually within 30 days after the bite:
- Reddish skin rash in a ring shape around the bite
- Flu-like symptoms such as fever, tiredness, headache
Most cases of Lyme borreliosis can be treated successfully with a few weeks of antibiotics. However, if left untreated, the disease can infect the heart, joints and nervous system.

**Tick-borne encephalitis** symptoms occur usually within 4 weeks after the bite:
- Fever, tiredness, headache, muscle pain and nausea
The later phase of the disease involves the neurological system with meningitis-like symptoms and requires hospitalisation. There is currently no cure for Tick-borne encephalitis. While deaths are rare, there is however a significant risk of long-term neurological effects. Considering vaccination and taking protective measures against tick bites are of utmost importance when visiting an endemic area.

**Crimean-Congo haemorrhagic fever** manifests itself with the following symptoms (initial symptoms occur within 30 days after the bite):
- Fever, muscle pain, dizziness
- Abdominal pain and vomiting
- Bleeding
There is currently no validated cure for Crimean-Congo haemorrhagic fever, which can be fatal, so it is very important to take preventive measures when visiting endemic areas.

**Tick-borne relapsing fever** symptoms occur usually within 3 weeks after the bite:
- Recurring episodes of fever
- Often accompanied by headache, muscle and joint pain, nausea
The number of relapses is highly variable and the interval between fever episodes ranges from 4 to 14 days. The recommended treatment is tetracycline or doxycycline. Deaths are very rare.

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For more information on the distribution of ticks in Europe: www.tickmaps.ecdc.europa.eu

**T**icks are very small and live on blood of mammals, reptiles and birds. As they feed, they can pick up bacteria or viruses naturally carried by these animals. Ticks can also bite humans who pass through the environments where they live. Although tick bites are not dangerous in themselves, there is a risk that ticks may transfer infections into your bloodstream while they feed. This can cause disease in humans.

In Europe, tick-borne diseases passed on to humans include:
- Tick-borne encephalitis
- Lyme borreliosis
- Tick-borne relapsing fever
- Crimean-Congo haemorrhagic fever
- Mediterranean Spotted Fever
- Anaplasmosis
These diseases occur in different regions where infected ticks are present.

For more information on tick-borne diseases, please consult the ECDC website www.ecdc.europa.eu

Ticks can be as small as a pin’s head or fairly large (about the size of a pencil eraser).

Illustration is only indicative. Sizes can change considerably depending on tick species.

[Name and contact details of health authorities]
For some diseases, there is a lower risk of infection if the tick is detected and removed quickly. As ticks are very small and their bites do not usually hurt, ticks can easily be overlooked on the body. So it is important to check yourself and your children, as well as your clothes and pets, carefully after having visited places where ticks may be present.

Still using the tweezers, wrap the tick in some toilet paper and flush it down the toilet. Finally, wash your wound with warm water and soap and apply antiseptic, like alcohol or iodine, to the area.

After the tick has been removed, a small part of the tick’s mouth may remain in the wound. This is not dangerous and it will disappear after a couple of days along with the wound. However, if the lesion does not start to resolve after a couple of days, you should see a medical professional as this may indicate an infection (rare).

Mark the date of the tick bite in your calendar and watch out for the symptoms of tick-borne diseases in the time following the bite. Make sure to inform your doctor of the date and location of the bite if you fall ill within 1 month after the bite.

Preventive measures

Tick-borne encephalitis can be prevented by a vaccine. Vaccination is recommended for those travellers who intend to visit rural areas in endemic regions, or who plan to camp in these areas. Please ask your doctor for more information at least 1 month before travelling and be aware that more than one shot is required for the vaccine to be effective. Also be aware that this vaccine does not protect you against other tick-borne diseases. As the other tick-borne diseases, cannot be prevented by vaccination it is important to protect yourself against tick bites.

Avoid or minimise exposure to tick bites

• Use insect repellents on your skin and clothes (clothes specific insect repellents should not be used on the skin)
• Keep arms and legs covered with long sleeves, long trousers and boots, with trousers tucked into socks
• Use light-coloured clothing and picnic blankets that make it easy to detect ticks
• After being outdoors, remove your clothes outside and expose them to the sunlight or wash them
• Use ground sheets when sleeping on the ground or camping
• Walk in the middle of paths and avoid brushing against the surrounding vegetation

Early and correct removal of ticks

Tick repellent on clothes and skin

Long-sleeved shirt

Tick repellent on clothes and skin

Long trousers

Tick repellent on clothes and skin

Trousers tucked into socks

Preventive measures

Ticks can be found in both rural and urban locations, including many popular destinations for outdoor activities and tourism. People visiting rural areas are most at risk from tick bites, but they can also occur in picnic spots, parks and gardens. There is a higher risk when pursuing outdoor activities such as camping, hiking, cycling, climbing, fishing or hunting.

If you are visiting an area where ticks are present, make sure you know how to prevent and check for tick bites.

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