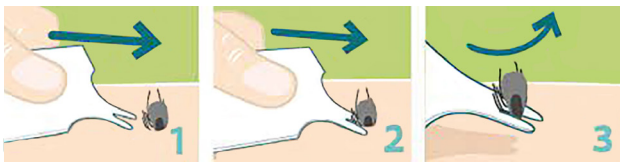


## Tick Card instructions and general information about tick-borne diseases

### Why carry a tick card?

- In the Netherlands, about 1.5 million tick bites occur each year (2022).
- On average, nearly 1 in 3 ticks is infected with the bacterium *Borrelia burgdorferi*, which causes Lyme disease.
- Half of all ticks carry one or more pathogens.
- About 1 in 20 tick bites leads to Lyme disease within three months.
- The risk depends on whether the tick is infected, how long the tick has been attached to the skin, and whether you can remove the tick without irritating it or squeezing its body.
- Prompt and proper tick removal is essential.
- This does NOT apply to ticks infected with the TBE (Tick-borne encephalitis) virus: this is transmitted immediately with the bite!



This tick card is easy to carry: in a bag, phone case, or wallet. Always make sure you have it on hand!

1. Slide the notch of the card under the tick.
2. Slide the card forward in one smooth motion.
3. Remove the card from the skin, together with the tick.
4. If the tick is in a hard-to-reach place, ask for help with removal!
5. It is important NOT to squeeze the tick's body: this increases the risk of infection.
6. Do not use oils, alcohol or other products before removing the tick. That could irritate the tick and thus increase the risk of infection.
7. Disinfect the bite wound and (if needed later) the card with alcohol (70% or higher) or iodine
8. Note the date and location of the bite; this is useful if an infection appears later.
9. Inform your doctor so the bite can be recorded in your medical file. You can also report it on [tekenradar.nl](https://tekenradar.nl).
10. Take a photo of the bite site to check for noticeable changes later.
11. Be alert for symptoms for 6 months, such as an expanding spot or ring on the skin (an EM), flu-like symptoms, or other symptoms.

12. The bite site may look somewhat irritated after removing the tick. This is not a cause for concern.
13. The removed tick can be placed in the supplied resealable plastic bag or in a piece of tape in the trash.
14. On our website, you can read more about [testing a tick for pathogens](#) and about the pros and cons of antibiotics immediately after the bite.

### Preventing tick bites

Preventing a tick bite is the best way to avoid tick-borne diseases! Take the following measures:

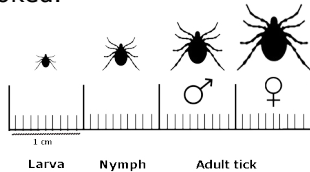
- Stay on paths as much as possible in nature and avoid undergrowth.
- Wear clothing that covers as much skin as possible: closed shoes, trouser legs in socks, long-sleeved shirts, etc. There is permethrin-treated clothing that offers extra protection against ticks.
- Ticks are often easier to see on lighter clothing.
- You can use spray on your clothing and skin with a product containing DEET, IR3535, picaridin, or lemon eucalyptus oil (citriodiol). [Visit our website](#). These products do not kill the tick but keep them at bay.
- For children, a cap can provide extra protection.
- After a walk in nature or working in the garden, carefully check your skin and clothing for ticks
- Ticks prefer warm and moist places such as the backs of knees, armpits, groin, behind the ears, and neck/hairline. So check these areas especially.
- Put clothing in the dryer for half an hour on the highest setting. Ticks can survive the washing machine at temperatures below 60°C.
- Also check pets for ticks before they come inside!





## Ticks

A tick is a small spider-like creature that bites humans or animals to suck blood. Ticks are found everywhere in nature; not only in forests, dunes, and rural areas, but also in parks and gardens. Especially ticks in the nymph stage (1–2 mm) are a risk in practice because they are numerous and easily overlooked.



They are mainly found close to the ground, for example in low undergrowth or on the tips of grass blades. Ticks are active almost all year round, especially at temperatures above 5°C and in relatively humid conditions.

## Lyme disease

A tick can, in all stages, transmit various bacteria, viruses, and parasites with its bite that can make you ill. The most well-known tick-borne disease is Lyme disease. If you have Lyme disease: the longer you wait with antibiotic treatment, the risk of severe, long-term illness increases. There is currently no test that can determine immediately after a tick bite whether you have contracted a tick-borne disease. So be alert for warning signs for 6 months and consult your doctor immediately if they occur!

## An Erythema Migrans (EM)

An expanding spot or ring on the skin within 3–4 months after the bite (EM) is a clear sign of Lyme disease. Immediate treatment with antibiotics is needed; testing is unnecessary and a waste of time. On light skin, an EM is red/pink; on dark skin, it may appear bluish/purplish (like a bruise).



The EM can also disappear on its own without treatment, but this does not mean the disease is gone.

The EM does not occur in everyone with Lyme disease and is not always recognized or noticed, for example with unusual shapes, very light color, or in a hard-to-see place. Therefore, always be alert for other symptoms!

## Other symptoms of Lyme disease

- Lyme disease can also cause many other symptoms, which often develop gradually over weeks, months, or years. If the bacterium spreads further through the body, the nervous system can also become infected (neuroborreliosis).
- Possible other symptoms are: flu-like symptoms, headache, nausea, neck pain and stiff neck, muscle and joint symptoms, radiating nerve pain, and much more. [Visit our website for all symptoms.](#)

On average, 10–20% of people with Lyme disease have long-term or permanent symptoms and limitations or notice after a period of improvement that the disease returns with the same or new symptoms. The risk of this is greater if antibiotic treatment is started too late, the dose is too low, or the treatment is too short.

## Other tick-borne diseases

Flu-like symptoms after a tick bite may indicate Lyme disease, but also other tick-borne diseases, such as tick-borne encephalitis (TBE/FSME). Consult your doctor immediately.

TBE/FSME is a virus that is transmitted immediately with the bite of an infected tick. This virus is quite new in the Netherlands and still rare, but it is on the rise. This virus can cause, among other things, brain inflammation (encephalitis) with serious consequences, even death (1–2%). There is no treatment for this virus. However, there is a vaccine that you can consider if you live or work in a risk area in the Netherlands ([see the RIVM site](#)) or if you are traveling to a country/region where it is common. More info: [www.ggdreisvaccinaties.nl](http://www.ggdreisvaccinaties.nl) or [on our site](#).

## (Much) more information on our website

Visit [tekenbeetziekten.nl](http://tekenbeetziekten.nl) (use the QR) and you will find very extensive information about all aspects of ticks and tick-borne diseases: from prevention to cure. But only in Dutch! Use the translator in your browser.

On the site, you will also find a contact form where you can ask all your questions!

The text of these instructions is also available on our website in Arabic, German, French, Frisian, English, Italian, Ukrainian, Polish, Portuguese, Russian, Spanish, and Turkish.

