

Rare tick-borne infections diagnosed in England

Public Health England (PHE) can confirm the diagnosis of a case of babesiosis and a probable case of tick-borne encephalitis (TBE) in England. This is the first record of a UK-acquired case of babesiosis and the second case of TBE being acquired in the UK.

Babesiosis is caused by a parasite which infects red blood cells whilst TBE is a viral infection that affects the central nervous system. Both are rare infections spread by the bite from an infected tick.

Both patients have been transferred to hospital, where they are receiving appropriate treatment and supportive care.

PHE regularly undertakes work to understand the potential risks of tick-borne infections in England. This year, PHE has surveyed sites in Devon close to where the person with babesiosis lives, collecting and testing hundreds of ticks – all tested negative for the parasite which causes babesiosis.

PHE has tested deer blood samples from Hampshire in areas near to where the person with probable TBE lives and they have shown evidence of likely TBE virus infection, which matches similar results found in 2019.

The risk of babesiosis or TBE for the general public is very low. However, a number of infections can develop following a tick bite, including Lyme disease, and there are things we can all do to reduce our risk of being bitten by ticks while enjoying the outdoors this summer.

It is important to 'be tick aware' and take precautions to reduce your risk of being bitten by ticks when enjoying green spaces this summer including:

- keeping to footpaths and avoiding long grass when out walking
- wearing appropriate clothing such as a long-sleeved shirt, and trousers tucked into your socks makes it less likely that a tick will bite and attach
- considering the use of repellents containing DEET
- making it a habit to carry out a tick check regularly when you're outdoors and when you get home
- if you have been bitten by a tick, it should be removed as soon as possible using fine tipped tweezers or a tick removal tool which is sold by many outdoor stores, vets and pharmacies. Grasp the tick as close to the skin as possible and pull upwards slowly and firmly. Once removed, wash your skin with water and soap, and apply an antiseptic cream to the skin around the bite
- contact your GP promptly if you begin to feel unwell, remembering to tell them you were bitten by a tick or recently spent time outdoors

Dr Katherine Russell, Consultant in the Emerging Infections and Zoonoses team

at PHE, said:

It is important to emphasise that cases of babesiosis and TBE in England are rare and the risk of being infected remains very low. Lyme disease remains the most common tick-borne infection in England.

Ticks are most active between spring and autumn, so it is sensible to take some precautions to avoid being bitten when enjoying the outdoors. Seek medical advice if you start to feel unwell after a tick bite.

About babesiosis

Most people with babesiosis will have either no symptoms or mild symptoms of infection; people with weakened immune systems can become very ill and present with flu-like symptoms such as fever, chills, muscle ache, fatigue, and jaundice.

About TBE

Around 2 thirds of people with TBE infections will have no symptoms. For those who develop symptoms, there are often 2 phases. The first is associated with flu-like symptoms such as fever, headache and fatigue. This can then progress to a more serious second phase that involves central nervous system, which can lead to meningitis, encephalitis and paralysis.

If you develop flu-like symptoms after being bitten by a tick, visit your GP.

Go to hospital if you:

- get a stiff neck and a severe headache
- get pain when looking at bright lights
- have a seizure (fit)
- have a change in behaviour – such as sudden confusion
- develop weakness or loss of movement in part of the body