

Tick-borne Encephalitis (TBE) - Don't run the risk



World Orienteering Championships



The first World Orienteering Championships was held in 1966¹



In 2018, for the first time, it takes place in Latvia²



TBE in Latvia



Latvia has a very high prevalence of TBE, with 42% of its total land area being covered by forest³



Those taking part in outdoor activities are at the highest risk⁴



Transmission season is typically from March to November⁴



Risk of contracting TBE is present in all wooded and forested areas of the country, including city parks⁴

What is Tick-borne Encephalitis?



COMMON – TBE is a tick-borne disease that is found in Europe, including Latvia, and other parts of the world^{5,6}



TICKS – The TBE virus is transmitted by ticks⁶



CNS – an infection of the central nervous system⁷



ONE IN THREE – chance of developing long-term complications including disability, paralysis and death⁵⁻⁸



NO TREATMENTS – there are currently no treatment or cures only symptomatic treatment of the disease^{**9}

*It is also uncommon, but possible, to contract TBE by consuming unpasteurised dairy products from infected livestock⁶

**In contrast to Lyme disease which can be treated with antibiotics¹⁰

When and where are people most at risk



WIDESPREAD – ticks that carry the TBE virus are widespread across Europe, including Latvia^{5,6,11}



AT RISK AREAS – infected ticks can be found in woodland habitats—deciduous forests and transition zones between forests and grasslands including city parks¹²



INCREASE IN CONTRACTING – the risk of contracting TBE disease is increasing, due to changes in climate and changes in people's lifestyles^{13,14}



AT RISK ACTIVITIES – orienteering, sightseeing, picnicking, camping, hiking or walking, biking, horse riding, golf and fishing^{5,6}

What are the symptoms of TBE?

TBE can appear in phases, initially presenting with flu-like symptoms including:⁵



High temperature (fever)



Headache



Tiredness



Muscle pain



Nausea

Most people with TBE recover fully, but some suffer long-term complications⁵

A post-encephalitic syndrome (PES) of neurological complications develops in **35–58%** of patients and this can cause serious, long-term complications and can result in paralysis or death¹⁵

Possible consequences of TBE, associated with PES include:¹⁵⁻¹⁸



High fever



Headache



Nausea



Muscle spasms



Ataxia
(group of disorders that affect co-ordination, balance and speech)



Seizures



Paralysis



Temporary and long-term loss of consciousness

How to help protect yourself from tick bites and TBE⁵



Wear long-sleeved tops and long trousers tucked into socks



Apply insect repellent to exposed skin and clothes



Regularly check yourself for ticks



Talk to your healthcare practitioner about vaccination that can help protect against TBE

Reference 1. Runners World. Orienteering: The Original Obstacle Race. Available at: <https://www.runnersworld.com/trail-running/a20850258/orienteering-the-original-obstacle-race/>. Last Accessed: July 2018. **2.** World Trail Orienteering Championships. Welcome to Latvia. Available at: <https://www.woc2018.lv/>. Last Accessed: July 2018. **3.** FAO. Forrest and Forestry in Latvia. Available at: <http://www.fao.org/docrep/w3722e/w3722e21.htm>. Last Accessed: July 2018. **4.** International Association for Medical Assistance to Travelers. Selective Vaccinations: Tick-Borne Encephalitis. Available at: <https://www.iamat.org/country/latvia/risk/tick-borne-encephalitis>. Last Accessed July 2018. **5.** WHO Regional Office for Europe & European Centre for Disease. Tick-borne encephalitis in Europe. Available at: <https://ecdc.europa.eu/sites/portal/files/media/en/healthtopics/vectors/world-health-day-2014/Documents/factsheet-tick-borne-encephalitis.pdf>. Last Accessed: July 2018. **6.** Lindquist L. Tick-Borne encephalitis. In: Tselis AC, Booss J: Handbook of Clinical Neurology, Vol 123, Elsevier BV 2014. **7.** Centre for Disease Control and Prevention. Tick-borne encephalitis (TBE). Available at: <https://www.cdc.gov/vhf/tbe/pdf/factsheet.pdf>. Last accessed: July 2018. **8.** European Centre for Disease Prevention and Control. Annual epidemiological report 2014 – emerging and vector-borne diseases. Stockholm: ECDC; 2014. **9.** NHS Wales. Encyclopedia. Tick-borne encephalitis. Available at: <http://www.nhsdirect.wales.nhs.uk/Encyclopaedia/article/tickborneencephalitis>. Last Accessed July 2018. **10.** Centre for Disease Control and Prevention. Lyme Disease. Available at: <https://www.cdc.gov/lyme/index.htm>. Last Accessed: July 2018. **11.** Kollartsch H, et al. Vaccines and vaccination against tick-borne encephalitis. Expert Rev Vaccines. 2012;11(9):1103-19. **12.** European Centre For Disease Prevention and Control. Factsheet about tick-borne encephalitis (TBE). Available at: <https://ecdc.europa.eu/en/tick-borne-encephalitis/facts/factsheet>. Last Accessed: July 2018. **13.** WHO. Weekly epidemiological record. Vaccines against tick-borne encephalitis: WHO position paper. 2011;86(24):241-56. **14.** Semenza JC, Suk JE. Vector-Borne diseases climate change: a European perspective. FEMS Microbiol Lett. 2017 Nov 15. doi: 10.1093/femsle/fnx244. **15.** Kaiser R. Tick-borne encephalitis. Infect Dis Clin North Am. 2008;22(3):561-75. **16.** Haglund M, Günther G. Tick-borne encephalitis - pathogenesis, clinical course and long-term follow-up. Vaccine. 2003;21 Suppl 1:S11-8. **5.** **17.** Kunze, U. The International Scientific Working Group on Tick-Borne Encephalitis (ISW TBE): Review of 17 years of activity and commitment. Ticks and Tick-borne Diseases 7 (2016) 399-404. **18.** Lämmli B, et al. Late sequelae of early summer meningoencephalitis. Schweiz Med Wochenschr. 2000;130(24):909-15.