

# Risk Factors for Tick-Borne Encephalitis (TBE) Among Travelers

## SEASON

- TBE virus transmission occurs primarily during the warmer months from April through November when ticks are most active.



## Location

- TBE virus transmission occurs within focal areas of countries in a geographic region extending from western and northern Europe to northern and eastern Asia;
- Country-specific risk information is available [here](#); the information should be interpreted cautiously because TBE virus transmission can be highly variable within risk areas and from year to year;
- Ticks are typically found in woodland habitats including in deciduous and coniferous forests and in the transition zone between forests and grasslands.



## Activities and occupations

- Examples of some recreational activities that can increase the risk of exposure to ticks include hiking, camping, cycling, hunting, fishing, bird-watching, and collecting mushrooms, flowers, or berries;
- Occupational risk might exist for those with exposure to ticks such as forestry workers, farmers, military personnel, or researchers undertaking field work in rural areas;
- TBE virus transmission can occur if persons ingest unpasteurized milk and milk products from infected goats, cattle, or sheep.



## Duration

- Activities undertaken are more important than time spent abroad, and TBE cases among U.S. travelers have occurred following short-term travel; however, a longer duration of travel, residence, or repeated travel to endemic areas might increase the likelihood of exposure to TBE virus.



## Other considerations

- Older persons with TBE have a higher risk of a poorer outcome than younger persons;
- Persons with altered immunocompetence can have severe TBE and have a higher risk of a fatal outcome; however, the immune response to vaccination might be diminished in immunocompromised persons.



More information can be found at <https://www.cdc.gov/mmwr/volumes/72/rr/rr7205a1.htm>