

# Tick Borne Encephalitis

## What is Tick Borne Encephalitis?

Tick borne encephalitis (TBE) is a viral infection spread by tick bites. The disease is present in rural, low-forested areas of Europe and in some countries in East Asia.

## Transmission:

The disease is transmitted by the bite of a hard tick (called *Ixodes Ricinus*). Usually up to 1-2% of ticks harbour TBE, but up to 10% may be infected. The ticks are most active between April and October when the climate is hot and humid.

The ticks prefer wooded areas and river meadows so risk groups are those who walk, hike, cycle, camp or work in woodlands. Rarely does infection occur in city areas or above 1000m in endemic areas.

TBE can also be transmitted by eating or drinking infected unpasteurised dairy products in risk countries. Unpasteurised products should be avoided in countries known to have TBE.

## The illness:

Only 10% of travellers bitten by a tick carrying TBE will develop symptoms. The illness usually occurs in two stages. After an incubation period of around 7-14 days (usually 10) the patient develops a flu-like illness, fever, tiredness, aches and pain. Most recover, but around a third of people develop the second stage, with a sudden rise in temperature with meningitis (brain inflammation). About a third of these go on to develop encephalitis which can lead to paralysis.

There is no specific treatment and the encephalitis is fatal in 1% of people. In children the second stage of the illness usually causes meningitis. Adults over 40 are also at increased risk of developing encephalitis. There is a higher risk of death in people over 60.

## Vaccination:

**Routine vaccine schedule:** Adults and children over one year:

A total of three doses, Day 0, 1-3 months later and at 5-12 months

**Rapid schedule:** A total of two doses, Day 0 and Day 14 (90% protection) with a booster at 5-12 months.

Protection starts 14 days after 2<sup>nd</sup> vaccination. Length of protection after 2<sup>nd</sup> dose is 1 year and 3 years after the 3<sup>rd</sup> dose.

**Tick-bite prevention:** Anti-tick bite measures should be followed:

- Wear long sleeves and trousers tucked in to socks. Use DEET 50% on exposed skin and permethrin should be used to treat clothing
- Check for ticks each evening after possible exposure. Ticks are upwardly mobile and like hairy areas - check scalp
- If a tick is found, remove it as soon as possible by pulling slowly and constantly with forceps, taking care to remove the whole tick. Oil, varnish or other substances should not be used as this may prompt injection of infectious material into the body.
- Seek local medical advice straight away.

### For further information:

[www.tbe-info.com](http://www.tbe-info.com)

or

<http://nathnac.org/travel/factsheets/tickborneencephalitis.htm>