



Avoiding the risk of Tick Borne Encephalitis

General Information

This viral disease is also called Central European Tick-Borne Encephalitis. It occurs in at least 18 central European countries and many thousands of cases occur each year. In general exposure risks are related to those spending time in more rural regions where they may run the risk of being bitten by an infected tick. Most risk occurs during Spring and Summer in the forested regions of these countries. Scouts, those planning to camp or trek rurally or those who will be living in high risk countries (especially children) may need to consider vaccination cover.

Geographical distribution

The particular tick which transmits this disease is found all over Europe though most cases are reported from Central and Western parts of the region. Reports are received each year from Finland to Greece, from Russia to France. Ireland and the UK are free of this disease. Due to the prevalence of the disease in Austria about 14% of the population are routinely vaccinated against this disease. This disease is found in the suburbs of Vienna and many hundreds of cases are reported in this region each year.



Mode of Infection

The disease is transmitted through the bite of an infected hard back tick (*Ixodes ricinus*). It is generally accepted that the tick needs to remain attached for about 24 hours before infection occurs though obviously careful removal at the earliest opportunity is clearly a wise precaution. Any 'empty' tick (no blood) will probably not have had sufficient time attached to cause infection though obviously medical advice should be sought. A number of other diseases can be transmitted through infected ticks (Lyme Disease, Babesiosis, Ehrlichiosis, Typhus etc) and so care should be taken at all times against these creatures. There have been reported outbreaks associated with dairy products (cow and goat milk) though this is rare. The typical incubation period is between 1 to 2 weeks following infection.

Avoiding Infection

As the infection is spread through the bite of an infected Tick it is obviously essential to avoid exposure when walking through the risk regions of the world. Wearing long trousers or slacks tucked into your socks and having the cuffs impregnated with permethrin will help repel the insects.

Going on a tick-hunt

It is also important to have a 'tick hunt' each evening to make sure no ticks escaped your best intentions during the day. Generally most ticks will be found in skin folds throughout the body. Typically this will be in the groin, the axilla and under the breast in a female.

Removing Ticks

Any ticks which are discovered should be removed carefully with a tweezers to ensure that the head and mouth parts come off the skin cleanly. If you are unsure how this should be done, gently cover the tick with any antibiotic or antiseptic cream and head rapidly for medical attention. Using a tetracycline antibiotic cream may be the best option.

Symptoms

The disease may range from a mild self-limiting illness to one of intense severity. It has been estimated that perhaps only 2% of all clinical infections are actually seen and there is a case fatality rate of between 1% to 2%. Patients may present with fever, headache, muscular aches and generalised influenza symptoms. In many cases the symptoms then lessen for a period of time (up to 1 or 2 weeks) before recurring with more severe symptoms. The encephalitis symptoms can be very prolonged and a number of those infected may develop neuropsychiatric problems.

Vaccination

An active vaccination against this disease is frequently used within some of the endemic countries as part of their childhood vaccination programme. For those travelling to these risk regions and who may be exposed to risk of infection (typically during the spring and summer months in the forested regions) a vaccine is sometimes recommended. This vaccine is given on two occasions usually one month apart and then boosted between 5 to 12 months later to provide cover for about a three year period. There is a paediatric vaccine for those from 1 to 15 years of age. [A passive hyper immune serum may also be used for those who require rapid cover.]

Diagnosis

The virus may be isolated from the blood or brain biopsy early into the infection. It would be uncommon to be able to isolate the virus from the CSF (brain fluid). Serum antibody tests are probably the most useful means of confirming the diagnosis following an initial clinical assessment.

Treatment

There is no specific treatment for this viral infection. General support of the patients symptoms and treating any secondary complications is essential.

Summary

This is a serious viral disease for which there is no current treatment. Protecting against the bite of ticks and pre exposure vaccination provides the best option avoiding this disease. Information on all aspects of international travel and the latest news reports are available at www.tmb.ie

National Travel Vaccine Appointment Tel 1-850-48 76 74

Web Address: www.tmb.ie

This leaflet has been prepared using information supplied from W.H.O. Center for Disease Control (US) and other International sources.

- ✓ Travel Accessories
 - ✓ Tropical Diagnostic Laboratory
 - ✓ Tropical Disease Screening Centre
 - ✓ W.H.O. registered Yellow Fever Vaccination Centre
 - ✓ International Vaccination and Malaria Advice Centres
- TBE/TMB/updated 5 May 2006*

- | | |
|---|--|
| <input type="checkbox"/> TMB - Blanchardstown | <input type="checkbox"/> TMB - Limerick |
| <input type="checkbox"/> TMB - Bray | <input type="checkbox"/> TMB - Malahide |
| <input type="checkbox"/> TMB - Dun Laoghaire | <input type="checkbox"/> TMB - Naas |
| <input type="checkbox"/> TMB - Grafton Street | <input type="checkbox"/> TMB - Shannon |
| <input type="checkbox"/> TMB - Galway | <input type="checkbox"/> TMB - Stillorgan |
| <input type="checkbox"/> TMB - Inchicore | <input type="checkbox"/> TMB - Walkinstown |
| <input type="checkbox"/> TMB - Kerry | <input type="checkbox"/> TMB - Waterford |