



Scrub Typhus



What is scrub typhus?

Scrub typhus is a rickettsial disease (a type of small bacteria) caused by *Orientia tsutsugamushi*.

How is it spread?

This germ infects people when they are bitten (usually painlessly) by an infected larval mite called *Leptotrombidium deliense*. The mite is very small (0.2 – 0.4mm) and can only be seen through a microscope or magnifying glass. The mite lives in grassland areas at the edge of dense monsoon forests or forested creeks. Mites usually feed on marsupials and native animals such as rats but they can attach to passing humans and bite for a blood meal.

Scrub typhus cannot spread from one person to another.

Where is the disease found?

Scrub typhus is found in Asia, northern Australia and the Pacific region. It extends from south-eastern Siberia and northern Japan, through eastern and south-east Asia, to Vanuatu in the east and Pakistan in the west. Other countries may well have foci. Thailand has the highest prevalence of disease. Between 1990 and 2004, there have been 17 reported cases in the Northern Territory with 1 death recorded. The areas in the NT associated with these cases were Litchfield National Park, Batchelor area, Tiwi Islands, Groote Eylandt and Emu Point near Peppimenarti in the Daly River area.

Regions where it has been found are described as areas in the Top End near

well watered escarpment slopes that have associated creeks and seepage areas with monsoon forest and grasslands in close proximity

What are the symptoms?

The symptoms usually occur within 1 to 2 weeks of being bitten. They may include fever, chills, sweating, headache, cough, swollen glands and a dull red skin rash. The bite may ulcerate and become red with a black scab.

Any person with these symptoms, and who has recently visited a risk area, should mention the possibility of scrub typhus to their doctor. The diagnosis is made by a blood test.

Who is at risk?

Anyone visiting areas near well watered escarpment slopes of the Top End that have associated creeks and seepage areas with monsoon forest and grasslands in close proximity are at risk.

The warning particularly applies for:

- bushwalkers
- off road tourists
- Aboriginal people pursuing traditional lifestyles
- military personnel on bush exercises.
- labourers clearing virgin land in high risk areas.

What is the treatment?

Treatment with antibiotics is very effective. Doxycycline is the drug of choice. Often people require treatment in hospital.

How can scrub typhus be prevented?

You should take precautions to avoid being bitten by mites when visiting “at risk’ areas. These include:

- Use footwear such as sneakers or boots with socks rather than walking barefoot or with sandals. Long trousers are preferable when “bushwalking”.
- Apply insect repellent that contains DEET or picaridin to all exposed skin areas on the legs, onto socks and the base of trousers (this is the same repellent you use to prevent mosquito bites).
- Do not sit or lie on bare ground or grass, use a suitable ground sheet or other ground cover.
- Camp in cleared areas away from dense forests. Use tents with attached floors. People who are working in infested areas should consider wearing permethrin impregnated clothing.

For more information contact your nearest Centre for Disease Control.

Darwin	8922 8044
Katherine	8973 9049
Nhulunbuy	8987 0359
Tennant Creek	8962 4259
Alice Springs	8951 7548

For more information on mites contact the Medical Entomology Branch.

Darwin	89228901
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