Tetanus

Tetanus is a vaccine-preventable disease caused by a toxin produced by the bacteria *Clostridium tetani*. and spores are found in soil throughout the world

Tetanus is a vaccine-preventable disease caused by a toxin produced by bacteria called *Clostridium tetani*. Tetanus spores are found in soil throughout the world. The disease is acquired when material containing these spores, such as soil, contaminates a wound. The toxin released from the bacteria may then attack the nerves of the brain and spinal cord. Tetanus is not spread by person to person contact.

Tetanus-prone wounds include the following:

- Certain animal bites and scratches.
- Burns.
- Puncture type wounds in a contaminated environment e.g. gardening injuries.
- Eye injuries.
- Wounds containing foreign bodies.
- Bone fractures with broken skin.
- Wounds in people with bloodstream infections.

Tetanus is found worldwide, but is more common in resource-poor countries with low vaccine coverage.

Generalised tetanus is responsible for most cases; this is associated with intense, painful contraction and spasm of skeletal muscles. It usually causes lockjaw (trismus) characterised by facial muscles spasm. Other symptoms include: a stiff neck, forceful arching of the back, abnormal breathing and difficulty swallowing. Even with intensive medical support, death occurs in 10 to 20 percent of cases.

Prevention

All travellers should be aware of the risk of accidents, thoroughly clean all wounds and seek appropriate medical attention. Further vaccines and / or immunoglobulin treatment may be recommended.

Tetanus vaccines

Travellers should have completed (or be up to date with) a primary UK vaccine course according to the NHS vaccination schedule. If visiting countries where medical facilities may be limited, a booster dose of a tetanus-containing vaccine is recommended if the last dose was more than ten years ago, even if five doses of vaccine have been given previously. This is a precautionary measure in case immunoglobulin (if recommended) is not available to the individual in the event of a tetanus-prone injury overseas.

Vaccination schedule

Vaccine	Schedule and age range
The 6-in-1 vaccine: diphtheria, tetanus, acellular pertussis, polio, *Haemophilus influenzae* type b and hepatitis B (DTaP/IPV/Hib/HepB)	Three doses: given at 8, 12 and 16 weeks of age and a fourth dose at 18 months of age
The 4-in-1 vaccine: diphtheria, tetanus, acellular pertussis and polio (dTaP/IPV)	Single pre-school booster dose: given at 3 years, 4 months old or soon after
The 3-in-1 vaccine: tetanus, diphtheria and polio (Td/IPV)	Single booster dose: given at 13/14 years of age A low dose diphtheria-containing vaccine should be offered to anyone aged 10 years or over whether they require the vaccine as part of a primary course or as a booster
Diphtheria, tetanus, and acellular pertussis (Tdap) From July 2024, a non-polio (IPV) containing pertussis vaccine is preferred but the diphtheria, tetanus, acellular pertussis, polio vaccine (dTaP/IPV) can be used for pregnant women if Tdap is contraindicated or unavailable [8]	Single booster dose: offered to pregnant women 16 to 32 weeks gestation*

***Recommended for pregnant women between 16 to 32 weeks to protect unborn child against whooping cough (pertussis). Women may still be immunised after week 32 of pregnancy, but this may not offer as high a level of protection to the baby.**

Resources

- UKHSA: Immunisation against infectious disease. Tetanus
- UKHSA: Tetanus: guidance, data and analysis
- WHO: Tetanus
- Further details on the vaccines can be found on the Summary of Product Characteristics (SPC) on the electronic medicines compendium