

Vaccination against Lockjaw (Tetanus)

Information by your physician and the Forum Impfen

The following information about lockjaw (tetanus) and prophylactic vaccination against this infectious disease is intended to provide fundamental updated* facts to help you decide whether to participate in these vaccinations.

Tetanus and its therapy

Tetanus is a disease caused by the poisonous substance (toxin) of the tetanus bacterium. Tetanus bacteria are present worldwide in the intestinal tract of animals such as sheep, cows and horses. The bacteria come into the soil through the feces of these animals. Especially large amounts of bacteria are found in naturally fertilized soil. The pathogen may enter the body through any injury where it produces its toxin. The poisonous substances spread through the nerves and the spinal cord and invade the brain. In the brain, nerve cells are blocked leading to spasms. The time between injury and onset of the disease varies between 2 days and 4 weeks. The first symptoms are usually paralysis of the masticatory and facial muscles leading to drinking, swallowing and chewing disorders. Then paralysis progressively affects the rest of the musculoskeletal system to various degrees. In severe cases, the whole musculoskeletal system including the respiratory (suffocation) and pharyngeal muscles (choking) are involved. Patients experience spasms while being fully conscious. General body functions such as blood pressure, temperature, heart beat etc. may be affected and may lead to death. Thus tetanus is a life-threatening disease. The course of disease may last for weeks. The mortality rate is between 20 and more than 50% and increases with age. Recovery from the disease does not protect against a new infection. Patients are treated in intensive care units while being put into an artificial coma with serum containing high doses of tetanus antibodies and antibiotics.

The vaccination

The vaccine contains a defined amount of detoxified tetanus toxin (toxoid). The toxoid is adsorbed to an aluminum compound which increases the formation of antibodies. The vaccine is injected into the muscle. For primary immunization, 3 doses (2nd dose 4 to 8 weeks later, 3rd dose 6 to 12 months later) of the vaccine are necessary. A hexavalent vaccine against tetanus/diphtheria/polio/pertussis/haemophilus influenzae b/hepatitis B is available for children. Booster doses should be administered according to the vaccination schedule for children and adolescents or every 10 years for adults. If possible, combination vaccines are used to administer other vaccines at the same time: for adults mainly combination vaccines against tetanus/diphtheria or tetanus/diphtheria/polio. During the first days after vaccination extreme physical activities should be avoided. Your physician has more details about the vaccination or reasons that may be considered to be a contraindication to vaccination. Transient swelling, redness and pain, in rare cases also nodules, at the injection site may develop after vaccination. Headache, shivering, fever, muscle and joint pain and gastrointestinal disorders are however rather uncommon and occur mostly in vaccinees receiving several vaccinations against tetanus within a rather short period of time. Allergic reactions (pruritus, urticaria, respiratory disorders, cardiovascular disorders) are very uncommon and are also mainly seen in patients who receive several vaccinations against tetanus within a short period of time. Only individual cases of severe complications (neuritis or encephalitis, transient reduction of the number of blood platelets, renal dysfunction) are reported.

Benefit for the individual and the population

Only vaccination during early childhood protects against this severe disease, from which 25% of all infected persons die. Since the pathogen is present anywhere and may enter the body through each small injury, early protection through vaccination which needs to be renewed regularly with booster doses during preschool age and adolescence and afterwards within 10 year intervals is of fundamental importance.

Who should be vaccinated

Tetanus vaccination is recommended for all individuals with no or incomplete primary immunisation or who received the last dose of the primary immunization or the last booster dose more than 10 years ago.

* This information is continuously reviewed and updated with the most recent knowledge.

Further information: Your physician