# **Tetanus**

Tetanus, or tetanus fever, is a disease caused by the neurotoxin Clostridium tetani, whose spores can be present in the soil due to animal faeces. Anyone can get tetanus, even if they have already had the disease. In Slovenia, tetanus vaccination started in 1951. The incidence of the disease has fallen sharply as a result. In our country, it is mainly older, unvaccinated people who get the disease.

#### **Transmission**

Infection can occur through a wound that is contaminated with soil containing tetanus bacillus spores. Soil-contaminated puncture wounds are particularly dangerous, as are blisters, burns and other wounds that may even go unnoticed. Infection can occur through the use of non-sterile materials (piercings, intravenous drug use, etc.).

# Symptoms and signs of the disease

The first sign is most often (50%) stiffness and spasms in the masseter muscles, followed by neck stiffness, difficulty swallowing, spasms of the vocal cords and trachea muscles, generalized spasms throughout the body, strongly enhanced reflexes, sweating and fever. The sensory nervous system is unaffected and the patient is fully conscious.

In new-born babies (they are still without problems at birth), the first sign is the absence of suckling 3-28 days after birth. They stop gaining weight and their bodies become stiff, cramps appear.

Spasms can cause fractures of the spine and other bones. Heart rhythm disturbances and coma can occur. Secondary infections include pneumonia. In the case of neonatal tetanus, the outcome is most often fatal.

### **Treatment**

Tetanus is an emergency condition at any stage of the disease and requires hospitalisation where the patient can be kept under constant surveillance.

# Prevention

Vaccination of children and adults offers good protection. Repeated vaccination is necessary for protection. Tetanus vaccination is included in the compulsory vaccination programme in Slovenia. This protects young children from the disease in the first year of life, when they receive the first three doses of a combination vaccine against diphtheria, tetanus, whooping cough, haemophilus influenzae type b and polio. The other three doses are given at the ages of 12–24 months, 8 years (3<sup>rd</sup> year of primary school) and 16–18 years (at the time of the systematic examination in secondary school). Furthermore, one booster dose is recommended every 10 years or at the time of injury.