

Tetanus

Agent: Toxin secreted by the bacteria *Clostridium tetani*

Mode of Transmission: The bacteria enter the body through a break in the skin, usually when a wound, either major or minor, is infected by contaminated soil, dust, or animal or human feces. Person-to-person transmission does not occur.

Signs/Symptoms: A descending pattern of painful muscle contractions, particularly of the neck muscles, difficulty swallowing and abdominal rigidity.

Prevention: Tetanus vaccine is available as part of the diphtheria/tetanus/pertussis (DTaP) vaccine for children and the combination tetanus/diphtheria/pertussis (Tdap) vaccine for adolescents and adults. One dose of Tdap should be given at 11 to 12 years of age with booster doses of tetanus/diphtheria (Td) every ten years thereafter.

Other Important Information: The case-fatality rate of tetanus ranges from 10% to over 80% and depends on patient age, length of incubation period, and quality of and access to care, especially access to intensive care unit resources and tetanus immune globulin. In the U.S., reported tetanus cases have dropped more than 95%, and deaths from tetanus have declined more than 99% since 1947, when the disease became reportable nationally. This decline was primarily attributed to continued use of tetanus antitoxin for wound management and introduction of tetanus vaccines in the 1930s and 1940s, which led to universal childhood immunization and the addition of tetanus boosters for adults. Sporadic cases of tetanus continue to occur in adults, especially in people who were not vaccinated in childhood or did not receive ten-year booster shots. In recent years, a higher proportion of patients with tetanus had minor wounds, probably because severe wounds are more likely to be properly managed.

Two cases of tetanus were reported statewide in 2013. One occurred in a male in the 20-29 year age group and the other occurred in a female in the 40-49 year age group. Both cases resulted from acute injuries, and neither of the individuals had received tetanus toxoid before symptom onset. In recent years, one case of tetanus was reported in each of 2004, 2005 and 2012.