

After painful ordeal and \$800K medical bill, unvaccinated boy survives tetanus

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(HealthDay)—Amid outbreaks of preventable childhood illnesses, one

unvaccinated Oregon boy's nightmarish encounter with tetanus should serve as a cautionary tale for "anti-vaxxer" parents, doctors say.

A team led by Dr. Judith Guzman-Cottrill, a pediatrician at Oregon Health and Science University in Portland, related the harrowing story of a preventable illness in a 6-year-old.

It began in 2017, when the boy cut his forehead while playing outside. According to the report, "the wound was cleaned and sutured at home."

Unfortunately, the boy's parents had never gotten him the routine combo DTaP (diphtheria-[tetanus](#)-pertussis) vaccine. Potentially deadly tetanus developed six days later.

Tetanus is caused by infection with the *Clostridium tetani* bacterium. "Bacterial spores found in soil can enter the body through skin disruption," the Oregon doctors noted, with onset of illness typically occurring within about eight days.

The young boy went through a severe, life-threatening illness.

"He was really sick and it was really difficult to watch," Guzman-Cottrill told *Stat News*. "He was suffering."

First came the painful, telltale signs of tetanus known as "lockjaw."

Still at home, "he had episodes of crying, jaw clenching, and involuntary upper extremity muscle spasms, followed by arching of the neck and back," his doctors reported.

"Later that day, at the onset of breathing difficulty, the parents contacted emergency [medical services](#)," and he was transported by air to OHSU's Doernbecher Children's Hospital in Portland.

Upon admission, the boy was still conscious and asked for water, but the "lockjaw" of tetanus rendered him unable to open his mouth. He was still undergoing spasms, so he was sedated, placed on a ventilator to help him breathe, and a tube was placed in his trachea.

Because any stimulation appeared to trigger more spasms, the boy received earplugs and was placed in a darkened room in the ICU, Guzman-Cottrill's team said.

Symptoms worsened, however, and he developed a form of high blood pressure, irregular heartbeat and fever up to nearly 105 degrees Fahrenheit.

Doctors gave him the first of the recommended two-dose DTaP vaccine, and treated the boy with "neuromuscular blockade" therapy to help ease spasms.

Only by the 35th day after admission to the ICU was the boy able to be weaned off neuromuscular blockade therapy, and by Day 44 he could breathe on his own again and took his first sips of water.

By Day 50, the boy could walk a few steps with assistance, and at Day 54 he was transferred to 17 more days at a rehab facility.

The total bill for his inpatient care was \$811,929, Guzman-Cottrill and her colleagues said. And that didn't include costs for air transport, rehab and any follow-up costs.

The good news: The boy survived his vaccine-preventable ordeal and seems to have fully recovered, running and bicycling again as might any child his age.

The bad news: His parents have refused the second recommended dose

of the DTaP vaccine and any other vaccinations for the boy, despite what he went through. His physicians noted that "inadequately vaccinated persons" remain at risk for tetanus, and the boy's encounter with the disease doesn't render him immune from it happening again.

This is the first case of tetanus in an Oregon child in more than 30 years, the doctors noted.

"I never thought I would see a case of severe tetanus in the United States," Guzman-Cottrill told *Stat*. "That was an astounding point for me."

Luckily, the vast majority of American parents do follow guidelines that advise routine five-dose vaccination of DTaP vaccine at four points in infancy and then a "booster" between 4 and 6 years of age. Ideally, people should then get DTaP boosters every 10 years throughout their lives, according to guidelines from the U.S. Centers for Disease Control and Prevention.

Widespread vaccination has nearly—but not completely—eradicated tetanus as a major threat, causing deaths linked to the illness to fall by 99 percent since the 1940s, the CDC says.

The boy's case was outlined in an article published in the March 8 issue of the CDC journal *Morbidity and Mortality Weekly Report*.

More information: Are your kids up to date on their shots? Find out at the [CDC's immunization schedules page](#).

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