Tetanus

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Informed Approach
Tetanus
An Informed Approach
By Jason Saunders

In the USA, with an average of seven to 10 deaths a year from Tetanus, there is a 180-260 times greater chance of dying from Tuberculosis.

Here's a story that's familiar to most of us. A few years ago my father nipped off the tip of his thumb with his secateurs while gardening. I drove the traumatised victim to the after-hours doctors surgery where they bandaged his thumb and gave him a tetanus shot, just in case. The theory is that dirt commonly has tetanus bacterial spores in it (Clostridium tetani), which might have entered and remained in the wound.

Tetanus vaccine is used prophylactically in case the spores start replicating and producing tetanus' sometimes deadly toxin. This toxin can get into the bloodstream and then the central nervous system, producing rigidity in the muscles, painful spasms, back arching and, most usually as the earliest symptom, the painful clamping shut of the jaws (hence tetanus old common name, lockjaw). The spores do not cause the disease; the toxin does. The vaccine is designed to elicit an antibody response to the toxin, not to the spores themselves. My father did not get tetanus.

It is a pretty rare disease these days. Most people, it is probably fair to say, believe that this is because in the generations following the late 1950s we were given tetanus shots as infants, subsequent 10-yearly boosters and, as with my father, routine vaccination following injuries. However, there are some reasons why we might doubt that simple explanation.
First, tetanus is a very rare disease in countries such as Australia, New Zealand and the United States, even though a large proportion of these populations are unvaccinated or under-vaccinated. Tetanus was also a relatively rare disease in the pre-vaccine era (that is, before the 1950s) when everyone was unvaccinated. Secondly, statistics show it is an age-related condition. It is mainly elderly people who have died from tetanus.

Anecdotal evidence suggests that poor nutrition and lifestyle habits that impinge on the immune system, such as smoking and drinking heavily, are also connected to susceptibility, usually in tandem with the age factor. Thirdly, wound care techniques have steadily improved since the 19th century when deaths from tetanus were more common. While the general public is largely unaware of this aspect, conventional medical literature gives as much, if not more, importance to this development as it does to vaccination.

**How Rare Is Tetanus?**

Very. For example, in the United States, with its population of 280 million people according to the 2000 Census, only 33 cases of tetanus were recorded in 1999. In 1988 there were 53 cases (with 10 deaths) and from 1990 to 1995 the average number of cases per year was 49.6 Most of the cases occurred in people aged over 50. It could be argued that people in their senior years are often unvaccinated and therefore vulnerable, since universal tetanus vaccination only began in the United States in 1956.

However, why isn’t the huge reservoir of younger adults who are lacking tetanus antibody being represented in these statistics? According to Center for Disease Control (CDC) tetanus vaccine experts, The 1988 to 1991 serosurvey indicated that 20 per cent of children 10 to 16 years of age did not have a protective level of antibody. A 1979 study found that in a sample of 1900 adults over 20 years of age, only 386 per cent were fully immunised. If we extrapolate from that study alone, about 120 million or so citizens (60 per cent of 200 million) were unprotected yet virtually none of them was getting tetanus, let alone dying from it.

Walene James, in her book Immunization: the Reality Behind the Myth, points out that in the United States in 1990 there were 25,700 cases of tuberculosis with 1800 deaths, tuberculosis therefore immensely outweighing tetanus as a cause of death. (Mothers of unvaccinated children who might be worried about them contracting tetanus because they’ve just joined the pony club, take note!)
In the United States, with an average of seven to 10 deaths per year from tetanus, there is a 180 to 260-times greater chance of dying from tuberculosis. In fact, since lightning strikes about 1800 people a year in that country, with an approximate mortality rate of 25 per cent (450 deaths), there is a 45-times greater chance of being killed by lightning than tetanus! Australian vaccine researcher Dr Viera Schreibner estimates that there are only 12 cases of tetanus, on average, per year in Australia, about half of them occurring in fully vaccinated people.

In New Zealand the official statistics for the 13-year period between 1980 and 1992 revealed 86 cases of tetanus. Seventy-nine per cent of the cases were in people aged 40 years or over; of the eight fatalities, seven people were aged over 70 and the other was 58 years old. As vaccine researcher Hilary Butler points out, most of those older people were probably unvaccinated, as mass tetanus vaccination only began in New Zealand in 1960.

Butler also poses a very good question: why didn't these unvaccinated people get tetanus when they were children?

- Tetanus is very rare
- Tetanus spores are everywhere!
- Half of cases occur in vaccinated people.
- Elderly are most affected.

New Zealand was a very rural society in the first half of the 20th century and children were more apt to play outdoors than they are today. Living on farms where animal manure was around, there would have been every chance for tetanus bacilli to enter the small wounds and abrasions they sustained. Mind you, its misleading to think that tetanus spores are primarily found in rural areas.

Investigations have revealed that tetanus spores are present everywhere: on our clothing, in house dust, on urban streets and apparently even in the human gut. One survey detected tetanus bacilli in 10 out of 35 human faeces samples! Louis Smith, PhD, suggests that C. tetani should be considered as being present at all times, even in the secluded atmosphere of an operating room in a large, modern hospital. He also says the idea that horse manure is especially high in tetanus is an old and faulty fable.
Why weren’t all these unvaccinated children growing up in the first half of the 20th century being struck with tetanus? Tetanus spores are everywhere and while the experts agree that traumatic wounds such as those that occur during wars are more likely to lead to tetanus, they acknowledge that tiny wounds can too.

According to George Dick, Professor of Pathology at London University, Forty or 50 per cent of tetanus results from wounds which are so trivial that medical attention has not been sought. In as many as one-third of the cases, there has been no detectable wound. So a slight scratch or even an insect bite can lead to tetanus, but not for unvaccinated children, nor even most unvaccinated adults.

Compared with adults, children have an amazing vitality, and its probably this that protected unvaccinated children from tetanus all those years ago and allowed them to develop natural immunity. Its highly probable that only people with very depleted vitality and very weak immune systems, such as the elderly, are susceptible to getting tetanus from non-traumatic wounds. The rest of us, whether unvaccinated or not, have a natural resistance to it even, I believe, when we experience traumatic wounds.

According to A. Trevor Willis, DSc, MD, PhD, Simple contamination of wounds with pathogenic Clostridia is not uncommon, and many such wounds heal by first intention without special treatment and without sequelae. In the pre-vaccine era, even wartime wounds with deeply embedded shrapnel and bullets, which provided the ideal anaerobic environment for the bacilli to start replicating, seldom developed tetanus. The bacilli, says Louis Smith, was isolated from 19 per cent of World War I wounds expressly examined for it.

These patients had not been immunised against tetanus, yet the disease developed in somewhat less than one per cent of the wounded who did not receive prophylactic antitoxin. To illustrate further, of 520,000 American soldiers wounded in World War I, only 70 developed tetanus.
Vitamin C And Immunity

The small minority of people who develop tetanus from trivial wounds are and the statistics are suggestive likely to be immune deficient, either because of old age, chronic ill-health, poor diet or drug taking (I include smoking and heavy drinking in this category) and most likely a combination of these factors. Many elderly people, as a result of poor appetite, have a diet lacking in essential vitamins and minerals. The same goes for intravenous drug users, another group prone to tetanus.

Linus Pauling, double Nobel Laureate scientist and expert on vitamin C, believed sub-clinical scurvy from vitamin C deficiency was widespread amongst senior citizens, making them prone to many illnesses. Vitamin C is a nutrient that is critical for immunity, so it should perhaps come as no surprise to learn it can be specifically curative.

Doctor Fred Klenner, a North Carolina physician, outlined in various papers published from 1948 to 1974 his success with using intravenous mega-doses of ascorbate to deactivate tetanus spores and their toxin. This makes sense, because vitamin C removes toxins from the bloodstream while also enhancing white blood cell activity.

In addition, since vitamin C is vital to collagen formation and has been proven to speed wound healing time, it is possible it also helps the body isolate and contain tetanus at the wound site. (Wounds can apparently break down if the body lacks vitamin C in the tissues.) Perhaps this is one reason why smokers may be a little more prone to tetanus, since they are known to have less vitamin C in the body.

Vaccine researcher Hillary Butler says she has personally known only two people who contracted tetanus and both were middle-aged people who drank and smoked heavily and had poor diets.

It's all about what strengthens or weakens the immune system. Even Louis Pasteur, the father of the microbe theory of disease, came to agree. He is reputed to have made a
retraction on his deathbed by declaring that his great scientific rival, Claude Bernard, had been right after all, that the microbe is nothing, the soil is everything.

By soil Bernard meant the living force of the body and its variable conditions which are influenced by emotions, diet, stress, age et cetera. Essentially he was speaking of susceptibility, of an inbuilt vital resistance, of something much more than just the antibody-antigen theory of immunity and the bio-mechanical model which fathered it (though that is part of it), of a force that could subjugate any microbial foe if its vitality was high enough.

The trouble with orthodox medicine is that it doesn’t give enough recognition to all the variable factors that influence vitality, mainly because it doesn’t recognise vitality as a valid concept in the first place. So it focuses on narrow measurable criteria for immunity, tending to support the outcomes of profitable techno-centric interventions like vaccines over more holistic solutions like nutrition.

**The Holistic viewpoint** would not find it a strange idea that people with no antibody to tetanus could still have good protection and that even without taking into account their lack of representation in tetanus statistics. Tetanus vaccination makes the body unsusceptible to the disease by inducing production of neutralising antibody (or antitoxin) to the tetanus toxin; this is the result of introducing weakened toxin into the body (the vaccine contains no attenuated bacilli).

Therefore, it seems ludicrous to suppose sub-clinical (non-disease manifesting) contact with the bacilli such as we all must be experiencing regularly can’t do the same. Indeed, the comprehensive and authoritative Vaccines edited by S.A. Plotkin and W.A. Orenstein alludes to this: Studies in the developing world and some developed nations ... have shown substantial proportions of some reportedly unimmunised populations ... [to have] detectable levels of antitoxin.

Specifically, up to 80 per cent of people in India and up to 95 per cent of people in a group of Ethiopian refugees had levels of antitoxin [considered protective]. However, these pro-vaccine establishment authors dismissed the findings by concluding, Even if natural immunity occurs in some unimmunised populations, it has no substantial importance in the control of tetanus.

Personally, I think the facts speak for themselves: the unvaccinated populations of
the Third World are not decimated by tetanus; natural immunity can be the only explanation for this. Similarly, in 19th century England, although tetanus incidence and mortality was significantly higher than it is today, it never came close to being a widespread cause of death.

Thomsons 1882 Dictionary of Domestic Medicine and Surgery

- Unvaccinated were not decimated
- People should have dropped like flies
- Wound care greatly improved

suggests the disease was comparatively rare. This was despite many members of the English working class being undernourished and lacking essential vitamins and minerals as a result of poverty; despite people living much more physical lives and hence being injured much more often; and despite surgical techniques being fairly rudimentary, with sterilisation almost unknown. If the pro-vaccine argument is right, people in the 19th century should have been dropping like flies from tetanus, but they weren't. As further proof of the doubtful role vaccination had to play in the control of tetanus, we can look at how the mortality rate plummeted during the early 20th century before tetanus vaccination became widespread. In the United States, the death rate was 64 per 100,000 of the population in 1900, eight per 100,000 in 1940 and 4.5 per 100,000 in 1950.

**What were the reasons?**

There were probably many. For one, this period was a time of rapid improvement in social conditions. Among other things, wages rose, diets improved, slums were cleared, running water was installed in homes and safety measures in workplaces were legislated. It was a time when mortality from all infectious diseases decreased greatly, and better living conditions were undoubtedly the catalyst.

In the case of tetanus, while better general health as a result of social change has to be a factor in the declining mortality rate, the most important reason was that wound care techniques and sterilisation procedures greatly advanced in this period.

It meant fewer women contracted tetanus after giving birth, less
people contracted it from surgery and far fewer babies contracted it when the umbilical cord was cut. According to Plotkin and Orenstein, in the United States there were 90 per cent less tetanus deaths occurring in babies in 1930 than in 1900.

Today, the World Heath Organization estimates that 400,000 babies in the Third World die each year of tetanus because of the use of unsterile cutting instruments and poor neonatal care while the umbilical stump heals.

**Just A Booster!**

It is clear, then, that tetanus vaccination cannot take most of the credit for saving us from tetanus. We mostly didn’t need saving in the first place, and in those cases where we did, other procedures deserve credit. Moreover, the giving of tetanus shots to children and babies two groups in absolutely no danger from tetanus as borne out by the statistics is a blind routine.

So is the practice of giving shots to people after they have been injured. Tetanus symptoms commence within a few days of the injury up to three weeks later, but usually within about seven days. It has generally been observed that the sooner the symptoms come on, the worse the prognosis. Since antibodies take about 14 days to form after vaccination, they could have no effect in preventing a dangerous case of tetanus.

According to pro-vaccine tetanus expert A. Trevor Willis, Tetanus toxoid (vaccine) injected for the first time into a non-immune individual at risk from tetanus provides no protection against the risk at this time.”" So why is it offered so routinely after injury? If you pinned them down, the authorities would be forced to admit its a policy designed to keep everyone up to date and an expedient time to give a booster shot. They probably don’t mind the popular misconception that the vaccine is a prophylactic for immediate injury. After all, vaccination is an industry that has always thrived on uninformed fear. The side effects of vaccination are another story, but I think its clear my father neednt have worried about getting the shot.
References
1. M.F. Para et al.
8. A. Trevor Willis, Anaerobic Bacteriology, 275.
11. Ibid, 447.
13. Plotkin and Orenstein, 449.
14. Willis, 302.

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