As one of my chosen forms of exercise, I run two to three times a week. Frequently, I am chased by dogs, but they are small and harmless and don't interfere with my running. I have considered getting some mace as a precaution, but hadn't gotten around to it. Last week I paid for my procrastination. A large pit bull, who is normally chained, was loose and decided to make a meal out of me. He bit my thigh hard enough to cause a large bruise and lacerate the skin.

After confirming that the dog's rabies vaccination was current, it was suggested that I get a tetanus shot. I decided against getting the shot.

Tetanus is caused by a toxin released by a bacterium. The common name for the condition is lock jaw, because it makes the muscles spasm. Death can be caused by muscle spasms in the throat, leading to suffocation.

The tetanus bacteria is a type that grows in environments free of oxygen. It can be found in soil that has been contaminated by animal feces, but only by animals that have the organism in their digestive tracts. The disease was more common in years past when more people had livestock.

So why did I decide to not get the shot? Well I believe in making informed, rational decisions. First of all, the wound was superficial without a puncture. If there were any tetanus bacteria in the dog's saliva, which is very unlikely, the bacteria won't grow in surface wounds. That is why it is commonly believed that wounds from rusty nails can cause tetanus. It has nothing to do with rust, but rather a nail wound is typically a puncture wound. Not all nail wounds will cause tetanus, because most nails are not contaminated by tetanus bacteria.

Tetanus is a very rare disease. In the U.S., the odds of getting tetanus are approximately 1.5 per million. Since 70% of those who develop the disease fully recover, only 1 per 5 million will die. Now you may think that 1 in 5 million is still a risk and that is true. What most people don't factor into these decisions is the risk of getting the vaccine.

First, there are ingredients in the shot that are used as preservatives and immune system irritants and these are for the most part toxic. They include mercury, aluminum, formaldehyde among other ingredients. Granted the concentration is low, but they are there and not something I would generally want to put in my body. An even greater risk that most people don't consider is the risk associated with going to the doctor to get the shot.

Most people have a very skewed perspective of risks associated with various activities. None of us consider the risk that we take every time we drive to the store or to a friends house or, in this case, to the hospital. Between the years 1996 and 2000, 202 people contracted tetanus in the U.S. That averages to 50 per year. 70% recover, so there were approximately 15 deaths caused by tetanus per year. The number of people who die in car accidents each year is many times that number.

So from a pure rational perspective, it is much more dangerous to drive to the hospital to get a tetanus shot than it is to not get the shot. Now this is the decision I made based on my knowledge of health and the human body and the condition of the wound that I received. It is also based on the fact that I take good care of my health, so if I were to contract tetanus, I would likely be in the group that recovered completely. If you ever receive a wound, you should discuss your particular situation with your doctor and decide for yourself if a tetanus shot is appropriate.