

## TETANUS

About a month ago there was a very lively and interesting discussion going on regarding the Tetanus vaccine, specifically for children who are otherwise non-vaccinated. I was going to join into the discussion as a non-vaccinating parent who felt ok about our choice to skip tetanus as well, but just hadn't found a minute to write something.

Then later that week I found myself staring the whole issue right in the face when my 5 year old son stepped on a rusty nail. He was in the yard of our new (old) house where chickens had recently grazed. He had shoes on (which isn't always the case) but the nail still went through his shoe and up into his foot, causing a painful and scary puncture wound.

I had known that there was an option for non-vaccinated kids in this situation, something called Tetanus Immune Globulin (not the tetanus vaccine booster as that would be in-effective in a non-vaccinated child). So I had taken comfort in knowing there would be an option for our children in an emergency and therefore had felt that this particular vaccine remained one I felt ok with not giving, despite the higher likelihood of Tetanus compared to some of the other diseases folks choose to vaccinate against. I had read a few years ago in a book the phrase "something called tetanus immune globulin can be given in a situation of acute tetanus risk". I thought "oh, great! We will fall back on this TIG option if we need to!" But I did not dig deeper. My seemingly "thorough" research surrounding our vaccination choices had stopped short of really learning about and understanding exactly what this TIG shot is...and this is where I found myself having major regrets. Not a place a parent likes to be regarding anything... especially in an emergency room dealing with something as serious as tetanus!

But there we were at the Emergency Room talking with the doctor (who, by the way, was very supportive of our non-vaccination choices and not judgmental at all) about that very same TIG shot I had taken blind comfort in. Thankfully he agreed with me and knew of the TIG shot as the only option for non-vaccinated children. (Surprisingly, many doctors do not realize that non-vaccinated kids cannot simply get a booster in an urgent situation).

In a nutshell, basically the TIG shot is a shot of concentrated Blood Plasma from blood donors who have been immunized against tetanus. It is "passive immunity"...blood plasma from vaccinated people injected into non-vaccinated people to make them immunized for a short period of time. It carries the same risks as blood transfusions (which is a whole big discussion, but overall the risks are more than once thought even with careful donor screening.) The TIG shot also has a significantly higher rate of reactions compared to the preventative tetanus toxoid vaccine. Apparently it also hurts a lot more in addition to the other higher risks of reaction.

For my son, who has a history of asthma and allergies, the doctor was very concerned about anaphylactic shock and was recommending that if we decided to administer the TIG, we should also give a high dose of antihistamines and pain medicine in order to counter any reaction that might occur. (And, again, he was not trying to scare me from a place of judgment or "non-vaccinated fear" or whatever...he was genuinely concerned because he had seen it before in a child who was not even in a high risk category such as my son.) So between these risks, along with the human blood product risk factors, along with the fact that the TIG is not 100% sure to prevent tetanus from developing...I found myself sitting there wishing that I had much more thoroughly researched the TIG option which I had relied so heavily upon when making our decision not to vaccinate against tetanus.

The doctor and I went over the pros and cons of doing the TIG vs. the "hope for the best" approach, keeping a keen eye for any early signs of tetanus (scary place to be!). Because the wound was not more than 1 cm deep, and because I had immediately oxygenated it with hydrogen peroxide, and because he felt for my child the TIG shot risks were quite high... the doctor supported our difficult choice to not do

the TIG. But the weeks that followed were pretty stressful. Every time Noah had a slight headache or felt "stiff" in his neck (which he did tell us at one point, though then realized it was because he had "slept funny on his pillow last night" as he put it!), I would immediately be on guard to see if things worsened. We had to pry open his little puncture wound and pour hydrogen peroxide inside it every few hours for a week and then spray it with this crazy antibiotic foam stuff. Not fun for any of us. But Noah is out of the woods and made it through just fine without developing tetanus. And today we went to our Naturopath and Noah and his sister received their first immunization (the Tetanus Toxoid alone). As hard as this was for me to make this decision, we feel that for our family it isn't really a matter of "if" this happens again, it is a matter of "when" it happens again and likely it will happen again in a more severe way (perhaps a deeper puncture wound, something happening at the neighbor's horse farm, etc.). And ultimately we feel the risks of the tetanus vaccine are lower than those of the TIG shot. Do not get me wrong...this experience did not take away my beliefs that there is indeed a valid and important reasons not to vaccinate. If anything, it has brought me in contact with additional information regarding vaccine risks that furthers my belief that most vaccinations are not the right choice for my kids.

But specifically breaking it down and comparing the Tetanus Toxoid Vaccine risks with the Tetanus Immune Globulin risks...I believe for my children the TIG risks are greater.

So my reason for sharing this story is because I feel like there are a lot of misconceptions out there about the tetanus situation. Even different doctors have different messages and it is quite confusing. The night this happened to my son, I spent hours on the phone with different doctors on call at different offices and docs and nurses at all of the ER's in the area, along with hours talking to pharmacists at the in-house pharmacies at the major hospitals in VT and NH regarding finding TIG and then Tetanus Toxoid alone if we chose to immunize in the future. The amount of conflicting advice was astounding. From my phone calls it was clear that CVMC had the best handle on how to deal with a non-vaccinated kid and we were fortunate to end up with a very knowledgeable ER doc who was also super non-judgmental.

After going through this situation so recently, and sorting through everything with a fine-tooth comb, I want to convey a few key things to perhaps support other families making these complicated decisions:

- The acute prescription for a non-vaccinated child who has a tetanus-risk injury (puncture wound, deep cut or scrape exposed to soil or contaminated water, etc.) is NOT THE TETANUS BOOSTER VACCINE. The tetanus vaccine takes several months to "kick in" and therefore would do nothing for a non-vaccinated child in an acute situation. It works in vaccinated folks to do just what it says..."boost" the immunity that already lays latent in the system for folks who are vaccinated. Tetanus Immune Globulin (TIG) is what your child would need in a tetanus-risk injury situation because it provides immediate passive immunity from another person's vaccinated blood plasma.
- Research TIG for yourself to decide if it really is something you are comfortable with as an alternative to preventative Tetanus Toxoid vaccine. Examine how you feel about giving your child a human blood product in a situation where it was perhaps preventable with something that has potentially less risks (or at least a different set of risks). And of course balance the risks of both choices with your family's lifestyle and risk factors. Not easy...but i sure wish i had done it ahead of time. Again, now for us it seems as though it isn't "if" we have to give the TIG in an emergency, but "when". We do not live super wild and crazy lifestyles...but we do spend a lot of time outside, are around animals sometimes, our children are very energetic and boisterous, and we have random building projects going on that surely sprinkle our yard with hidden nails and screws despite our best efforts to keep construction areas tidy. I dare say that many Vermonters might just be in the "when" versus the "if" category regarding the chances of a tetanus risk injury.

- IT IS POSSIBLE to get Tetanus Toxoid vaccine by itself without pertussis or diphtheria for those of us who decide we want to vaccinate against tetanus alone. Thankfully, our son's Naturopathic Doctor (his primary care doc) here in Montpelier is one of the only doctors in the state (no kidding!) who stocks and administers it. Research carefully...ask questions...and do not be afraid to disagree if you are told by your doctor that you "can't get" tetanus toxoid alone. In fact, just the week before my son stepped on a nail, my husband had a similar issue and had to go for a tetanus booster. He insisted he wanted tetanus alone, but was told by his doctor (at a different health center in Montpelier) that Tetanus alone "simply does not exist anymore." He ended up being talked into DT after trusting them that T alone no longer exists and that if he tried to find it, he would be unsuccessful and in the meantime too much time would pass. Come to find out it was false information, as Tetanus Toxoid alone does exist. So...if you feel very strongly (as I did) that you only want to give Tetanus alone...you can find it and find someone to support you. I did have to pay out of pocket (\$40) as our insurance would not cover it since our children are under age 7. It is not a medical contra-indication for under age 7, by the way, but a much more complicated policy issue. I could go into detail about the politics and craziness that surrounds this whole part of the issue...but I won't go there. (If someone wants to talk to me about it directly...drop me a note as it is quite interesting and slightly maddening!)
- Quickly...about the mercury thing: i have heard talk that "if" the tetanus toxoid does indeed exist, then it is loaded with mercury still. Not true. The one we used today was not loaded with mercury. Again...do more research, read labels of the specific vaccine, and talk to a doctor who you really trust and who generally supports your skepticism and need for lots of information to make a decision you feel good about.
- If you decide not to vaccinate for Tetanus, it is important to know that if you or your child goes to the hospital as an unvaccinated person in an acute tetanus risk situation, they will (hopefully) know to give TIG, but they will also want you to do a Tetanus vaccine combo (either dT or dt plus pertussis) in order to get you going on immunization. In this case, you can opt out of the vaccine part of the protocol, only accept the TIG, and wait to decide about the vaccine until you have a chance to research and/or talk with your doctor and perhaps find Tetanus alone. The vaccine will do nothing to help an un-vaccinated person in an acute situation, so you can wait to make that part of the decision in a less heated environment.

I feel as though I am leaving something out, but this is already very long and wordy. I do apologize for being long-winded about this stuff. I guess it is just an issue that is near and dear to my heart right now after just being in the eye of the storm, so to speak. And so many folks I talk to do not even know about the TIG specifics but rather they take comfort in knowing there is "something" they can do in an acute situation. So they punt the ball down the road until that acute situation occurs...like we did. I have a feeling that many folks, like me, would not take TIG so lightly once they research the specifics. And many other folks have been led to believe that your un-vaccinated child can simply wait to get the vaccination until it is needed in an acute situation. This is not the case. The vaccine will not work in an acute situation where the person is not previously vaccinated.

May we all navigate these hard decisions with grace and wisdom.

Be well,  
Sarah