

Healthy Kids



Vaccinations - a parents' decision

By Dr. Katie Greeley

Informed decisions are powerful when it comes to vaccinations. **Many choices are made based on fear instead of knowing how a vaccine actually works** and how your child's immune system comes into play. As a chiropractic physician I am not here to make your decision for you but to empower you as a parent to make the appropriate decision for your family.

THE NUMBER ONE COMPLAINT I ENCOUNTER in my office after an adverse effect from a vaccine is that the parent wishes they had known what to look for and had more information about vaccines rather than blindly following the schedule of care they felt necessary.

How do you make the choice? Is it better to vaccinate and run the risk of an adverse reaction or not vaccinate and run the risk that your child might get the disease itself? Before one can make that decision, they must understand how vaccinations and the immune system work.

The goal of our public health department is to eliminate the expression and the shedding off of the

disease. They would like to see a reduction in the occurrence of the disease. From a public health standpoint, as long as we do not see the expression of disease, such as the rash and contagiousness of the disease, then the vaccine has done its job. The problem is, many believe that vaccinating our children is not without its own risks. Autism and decreased immune function have been linked to vaccinations in some cases, though experts disagree about the issue.

How do temporary immunity and permanent immunity actually work and what is the difference? When a person needs to fight a virus or bacteria naturally, the body engages in calling lymphocytes known as “helper cells,” in this case Th1 cells, to help deal with the virus or bacteria. When dealing with a parasite or toxin on the other hand, the body engages Th2 cells to deal with that host.

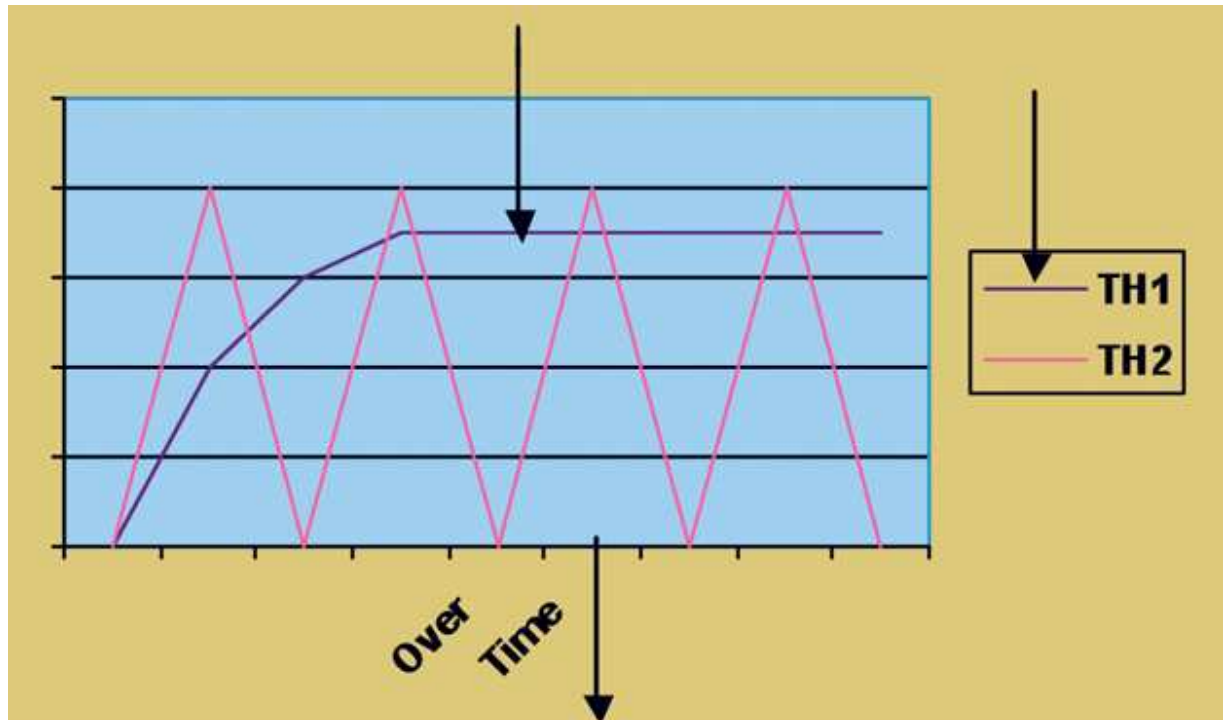
Both cells are essential to keeping our immune system functioning but both are also suppressors of each other. For instance, when busy fighting viruses, Th2 cells are not working, and when busy fighting toxins, Th1 cells are not working.

This is important to understand because temporary immunity and permanent immunity work with either Th1 or Th2 to do their job. Th1 is unique. It is able to penetrate our cell walls to fight off bacteria or viruses that have entered and started to replicate. Th2 cannot get into our cells, so these cells wait until the virus breaks out of the cell to attack, hopefully before a newly-released virus reenters a new cell and starts replicating or mutating.

When a child is given a vaccine that carries a foreign toxin, such as chicken pox, this immediately increases the body’s response to Th2 and produces a high antibody titer (a high number of antibodies in the bloodstream) which is effective in keeping the disease from expressing itself, keeping it inside the body. Therefore we do not see the effect of the body fighting off the disease. We no longer see the incidence of chicken pox rash among our youth.

In a study by Gary Goldman, PhD, on the chicken pox vaccine and the shingles epidemic, research has found “that shingles, which results in three times as many deaths and five times the number of hospitalizations as chicken pox, is suppressed naturally by occasional contact with chicken pox.” So since 1995, when we suppressed our children’s bodies from shedding the vaccine, we made the more deadly form of the varicella-zoster virus more prevalent in our society.

We do not know how long a temporary immunity will last with a vaccine before we need a booster. For some it is a few months, while for others it is 20 years (see graph below Th2). When our children come into contact with a disease or virus naturally, they will build a Th1 response to the virus and therefore slowly build antibodies that protect them for the rest of their lives (see graph below Th1).



Susceptibility

When a natural virus enters our body, the first line of defense is typically activated through the nose, where antibodies try to neutralize that virus before it can get into the cells.

If that system fails to work, we then encounter an undefined Th system waiting which initiates the second line of defense in the epithelial cells. The Th cells are instructed to become Th1 cells, which are sent to enter the cell to kill the virus.

If this fails, our third line of defense is located in the bloodstream. This consists of getting the virus out of the body by cell-mediated immunity with killer T cells which externalize the virus with symptoms like a rash.

When we vaccinate, we go immediately into our third line of defense. Since we did not have the initial Th1 response, our bodies turn to the quickest, most effective immune response to deal with invaders and toxins — the Th2 response.

The Th2 response lacks the ability to send the killer T cells to externalize the virus. So the cells with viruses inside are not destroyed. This could eventually lead to a repressed chronic infection, keeping the virus internalized. As a result, we do not see the outward signs or symptoms of the disease such as a rash.

This type of Th2 response is quick-acting but short-lasting, requiring constant exposure (boosters), since Th2 does not have a long-term memory of the particular virus.

In contrast, a Th1 response is long-acting but slow-developing with no need of constant exposure. If the cell is exposed a second time it will act quickly and efficiently because it remembers that particular virus.

Let's look at ear infections for example. Why do some kids seem to suffer often while others have none? Some children's immune competency is in balance and that of others is not, either due to some nerve or nutritional imbalance. We work to remove that imbalance and stimulate the Th1 cells to hopefully enable the body to deal with the virus more effectively.

Now that we understand our immune system and how it functions when exposed to viruses and toxins, as parents we can make more informed decisions.

It is important to note that newborns, until the age of 6 months, have no ability to eliminate heavy metals from their system. If you choose to vaccinate, be aware that you have the right to request mercury- or thimerosal-free vaccines. You also have the right to know which lot the vaccine came from and whether there is a "hot lot" (one that caused a lot of adverse reactions) to avoid.

Do you understand what reactions to a vaccine you should look for, and how to report an adverse reaction if your child has one? Did you know you can request single-dose vaccinations?

Before entering your pediatrician's office to have your child vaccinated, ask yourself the following questions: Is my child sick right now? Do I know if my child is at risk? Is there history in my family of vaccine reactions or health problems? Do I know the manufacturer and lot number? Do I know how to report an adverse reaction on www.vaccinesafety.edu?



It is considered best to avoid stressing the immune system with foreign substances when the immune system is already suppressed, such as when a child is already fighting a viral or bacterial infection, or during times of stress like teething, weaning and starting a new day care or school.

If you choose not to vaccinate, do you know how to recognize and appropriately manage the illness that vaccines temporarily protect against? Do you know your rights under state laws about exemptions?

While some speculate adverse reactions may be purely genetic, I believe the body's immune response or immune imbalance can lead to the expressions of adverse reactions.

We are discovering that kids' immune systems are overreacting due to a dominant Th2 response. Their bodies start making antibodies and antigens to everything not recognized as "self" and in worse case scenarios, attacking its own immune system. Hence, we have the emergence of whole body autoimmune disorders such as lupus or severe allergies. In Th2-dominant immune systems, we usually see kids with allergies, asthma, eczema and chronic infections.

In addition to vaccinations, the following can also keep our body out of a Th1/Th2 balance: antibiotics, stress, caffeine, nicotine, food deprivation, sugar, progesterone, trans and saturated fats like omega 6, pesticides and diesel fumes.

A parent can do several things to increase cell-mediated immunity or Th1 response for natural immunity when in the presence of threats such as the influenza virus:

- Reduce stress.
- Add more antioxidants, fish oils, or plant sterols to the diet.
- Increase DHEA, glucans (by serving more vegetables and bran) or mushroom extracts.
- Add selenium, zinc and probiotics to the diet.

If nursing, continuing to do so will assist the Th1 response.

To obtain a copy of the Reportable Events Table, call 1.800.822.7967 or visit www.vaers.hhs.gov/reportable.htm. Additional information about vaccines can also be found on the following websites:

- www.vaers.hhs.gov
- www.fda.gov/cber/vaers/vaers.htm
- www.cdc.gov/vaccines
- www.nvic.org

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