How Vaccinations Work

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In order to use vaccinations wisely, we need to understand exactly how they work. Vaccines are designed to cause an increase in antibody levels (titers) against a specific bacterium or virus, thus preventing illness with that bacterium or virus. But exactly how does a vaccine prevent its human recipient from manifesting the specific illness the vaccine has been designed to prevent?

The immune system is composed of two functional branches or compartments that may work together in a mutually cooperative way or in a mutually antagonistic way depending on the health of the individual. In this article I will use the older, original names for these two branches, the humoral and the cellular branches.

The humoral immune function (or approximately Th2 function), primarily produces antibodies in the blood circulation as a sensing or recognizing function of the immune system to the presence of foreign antigens in the body. An antigen is any substance which, on entering the body, is unable to be integrated into the body's inner environment.

The great Renaissance physician Paracelsus famously said that every substance, including our usual food and drink, that enters us acts as a poison which requires us to digest and transform it in order to make it compatible with our own individual inner environment. Thus the task of our digestive system is to process all our food and drink to be compatible with our individual human ecosystem, to remove all foreignness, i.e. all *antigenicity* from everything entering our body. Any entering substance which our digestive system fails to divest of its foreign antigenicity then becomes a challenge and a target for our immune system. Our immune system is really like a backup digestive system that extends throughout our body in our blood. The task of the humoral branch is to create specific antibodies which "tag" and to some extent neutralize specific foreign antigens within us as a preliminary step to the more thorough processing of our foreign antigens by the other branch of our immune system.

The other branch is the cellular or cell-mediated immune system (or approximately Th1 function), which primarily destroys, digests and expels foreign antigens out of the body through the activity of its cells found in the thymus, tonsils, adenoids, spleen, lymph nodes and lymph system throughout the body. This process of destroying, digesting and discharging foreign antigens from the body is known as the *acute inflammatory response* and is accompanied by the classic signs of inflammation—fever, pain, malaise and discharge of mucus, pus, skin rash or diarrhea. These symptoms of fever etc. tell us that our immune system is doing what it needs to do to expel foreign matter from our body.

These two functional branches of the immune system may be compared to the two functions in eating—tasting and recognizing the food on the one hand, and digesting the food and eliminating the food waste on the other hand. In the same way, the humoral antibody-producing branch of the immune system tastes and recognizes and remembers foreign antigens, and the cellular branch of the immune system digests and eliminates the foreign antigens from the body. But just as too much repeated "tasting" of food will ruin the appetite, so also too much repeated stimulation of the "tasting" humoral immune system by an antigen will inhibit and suppress the digesting and eliminating function of the cellular immune system. In other words, overstimulating antibody production through repeated exposure to many different antigens can suppress the acute inflammatory response of the cellular immune system! This happens in many AIDS patients, for example.

This becomes clearer if we imagine the immune system to be like a balance beam or a see-saw. At one end of the beam is antibody production . At the other end is the acute inflammatory response of the cellular immune system. In a healthy person the beam freely swings to the cellular side when the organism needs to destroy, digest and discharge a particular infection out of the body.

When this has been accomplished, then the beam freely swings back to the humoral side to produce antibodies, which then help to *shut down* the acute inflammatory response before exhaustion sets in, so the ill person can begin recuperating. That is why antibodies become detectable in the blood only *after* an acute illness, and not in its early

stages. A vaccination is like a straitjacket for the immune system because it holds the balance beam permanently (or until it wears off) on the humoral side in maintaining a certain level of antibodies which "prevents" the illness because it prevents our own cellular immune system from reacting to the virus or bacterium associated with that particular illness!

This explains the polar opposite relationship between acute discharging inflammations on the one hand and allergies and autoimmune inflammations on the other hand. The more a person has of one, the less he or she will have of the other! A growing number of scientists believe that the large increase in America, Europe, Australia and Japan in allergic and autoimmune diseases (which stimulate the humoral branch of the immune system) is caused by the lack of stimulation of the cellular branch of the immune system due to the lack of acute inflammatory illnesses and discharges in childhood. We need to identify the factors which cause this shift in the function of the immune system and which cause allergies and autoimmune diseases in childhood to increase! Two of the most obvious of these factors are the overuse of vaccines and antibiotics.

If we now return to the original question of the mechanism of action of vaccinations, we find what I believe is the key to the puzzle. A vaccination consists of introducing a disease agent or disease antigen into an individual's body without causing the disease. If the disease agent provoked the whole immune system into action it would cause all the symptoms of the disease! The symptoms of a disease are primarily the symptoms (fever, pain, malaise, loss of function) of the acute inflammatory response to the disease. It needs a strenuous rethinking to confront the fact that the frightening symptoms of the most feared infections are caused by the reactions, and in some cases the overreactions, of our own immune system.

So the trick of a vaccination is to stimulate the immune system just enough so that it makes antibodies and remembers the disease antigen but not so much that it provokes an acute inflammatory response by the cellular immune system and makes us sick with the disease we're trying to prevent! Thus a vaccination works by stimulating very much, usually by using an aluminum adjuvant, the antibody production and by stimulating very little or not at all the

digesting and discharging function of the cellular immune system. Vaccine antigens are designed to be unprovocative or indigestible for the cellular immune system and highly stimulating for the antibody-mediated humoral immune system.

Perhaps it is not difficult to see then why the repeated use of vaccinations would tend to shift the functional balance of the immune system toward the antibody-producing side and away from the acute inflammatory discharging side (the cell-mediated side). This has been confirmed by observation especially in the case of Gulf War Illness where the multiple, highly stimulating vaccinations received by most soldiers caused a shift in their immune function from the Th1 side (acute inflammatory discharging response) to the Th2 side (chronic auto-immune or allergic response), and made them chronically ill with the autoimmune manifestations of Gulf War Illness.

The outcome of this line of thought is that, contrary to previous belief; vaccinations do not strengthen or boost the whole immune system. Instead vaccinations, with their aluminum or other adjuvants, overstimulate the tasting and remembering function of the antibody-mediated branch of the immune system, which simultaneously suppresses the cellular immune system thus preventing the usual *appearance* of the disease the vaccine was designed to prevent. If our cellular immune system is unable to react, there's no manifest acute disease, but instead there is an increased tendency to allergic and autoimmune conditions.

What in reality is prevented is not the disease but the ability of our cellular immune system to manifest, to respond to and to overcome the disease! So a vaccine does not prevent a disease germ from entering our body, but a vaccine hinders our immune system from creating a strong and sometimes dangerous acute inflammatory reaction to the germ. But the germ does not disappear, it goes underground and lingers in the body. Since our cellular immune system has been prevented by the vaccine from reacting *acutely,* instead it reacts *chronically*, causing allergic and autoimmune conditions, which have increased steadily in children, and in adults too, as the number of vaccines in use has increased.

There is no system of the human being, from mind to muscles to immune system, which gets stronger through avoiding challenges, but

only through overcoming challenges. The wise use of vaccinations would be to use them selectively, and not on a mass scale. In order for vaccinations to be helpful and not harmful, we must know beforehand in each individual to be vaccinated whether the cellular function or the humoral function of the immune system predominates.

In individuals in whom the cellular function predominates, causing many acute inflammations because the cellular immune system is overreactive, a vaccination could have a balancing effect on the immune system and be helpful for that individual. In individuals in whom the humoral function predominates, causing few acute inflammations but rather the tendency to chronic allergic or autoimmune inflammations, a vaccination would cause the humoral function to predominate even more, aggravating the imbalance of the immune system and harming the health of that individual. This is what is happening to our children today.

The current use of vaccinations in medicine today is essentially a shotgun approach that ignores differences among individuals. In such an approach some individuals may be helped and others may be harmed. If medicine is to evolve in a healthy direction, we must learn to understand the particular characteristics of each individual and we must learn how to individualize our treatments to be able to heal each unique human being in our care.

Vaccinations are usually effective in preventing an individual from manifesting a particular illness, but they do not improve the overall strength or health of the individual nor of the immune system. Instead, vaccinations modify the reactivity of the immune system, decreasing acute discharging inflammatory reactions and increasing the tendency to chronic allergic and auto-immune reactions.

Epidemiologic studies 7, 8, 9 have shown that as families improve their living conditions, hygiene, nutrition, literacy and education, the risk of life-threatening, acute, infectious , inflammatory diseases very much decreases. Families with poor living conditions, hygiene, nutrition and literacy could possibly benefit from selected vaccinations. Families with good living conditions, hygiene, nutrition and education probably would benefit from vaccinations very little or not at all. Individuals with a tendency to allergic or autoimmune diseases are likely to be harmed by vaccinations.

Side effects of vaccination are usually allergic or autoimmune inflammatory reactions caused by the shift of the immune system's reactivity from the cellular side to the humoral, antibody-producing side. Modern medicine is just beginning to recognize this. 10 Modern medicine has not scientifically measured the risk/benefit ratio of any vaccine. 11 Research into the risks of vaccines is very inadequate, according to two comprehensive reports on vaccines by the U.S. Institute of Medicine in 1991 and 1994.

It is important to remember that an infection with a particular virus or bacterium does not necessarily cause illness unless the resistance of the individual is low (see Dr. Incao's article Not a Battle, but a Housecleaning.) Individuals living in poor conditions, with poor hygiene, nutrition and education are at higher risk of serious illnesses from any infection.

The world's leading expert on autoimmunity, Israeli physician Yehuda Shoenfeld published a ground-breaking article in the Journal of Autoimmunology in 2011 that establishes that vaccine adjuvants cause a wide variety of autoimmune conditions grouped under the heading of the ASIA syndrome i.e., Autoimmune Syndrome Induced by (vaccine) Adjuvants. (12). In 2015, Dr. Shoenfeld published an academic textbook Vaccines and Autoimmunity (13) that includes 37 medical research articles from research teams in medical centers in several different countries, all linking vaccines to many different autoimmune diseases.

This should be front-page news, but instead our mainstream media has been silent about the above recent developments which directly affect the vitally important issue of our children's health.

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