Creating a Personally Tailored Diet Including Food Allergies, Private Testing & Applied Kinesiology – Everything You Need to Know!

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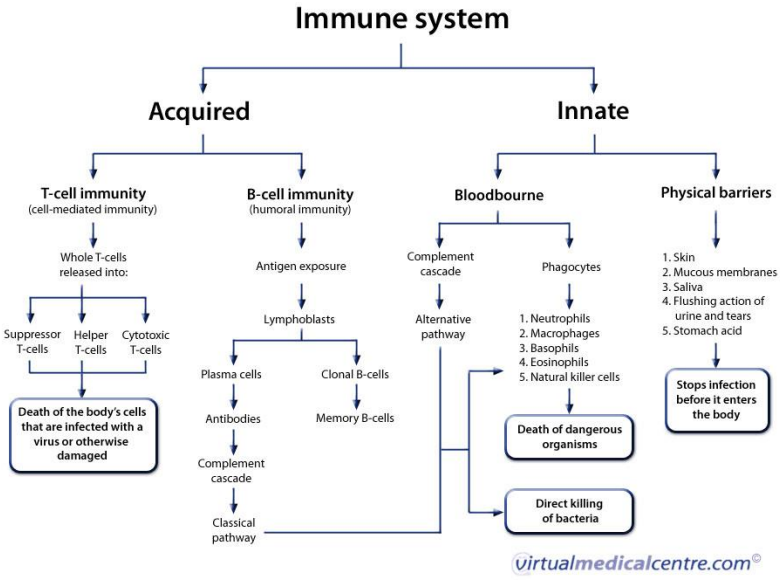
If you are wondering what diet is the best one for you? this article is the next best thing you will want to read. Before continuing let's take a quick look at the immune system – it is quite complicated and new research is developing daily so please have patience while reading.

The immune system is set up to protect us. There are two types innate and acquired (see the Immune system chart). Innate is the physical barriers like the skin, the gut, saliva, etc. as well as cells that engulf microbes like bacteria. It includes neutrophils, monocytes, eosinophils, basophils, and natural killer cells – think of this like the front line going to war. Next, acquired immunity includes lymphocytes / antibodies (T-cells and B-cells) and is analogous to the missiles and guns during a war – it is much more specific. When something reaches the blood stream that shouldn't be there – a toxin, a microbe, a virus, a piece of food that leaked through the gut – the immune system reacts by sending out a T-cell antibody which then acts to destroy it. This is a great system to have; however, it sometimes overreacts or cross reacts to something similar in the body and this is where we see food allergies, skin reactions, and autoimmune conditions.



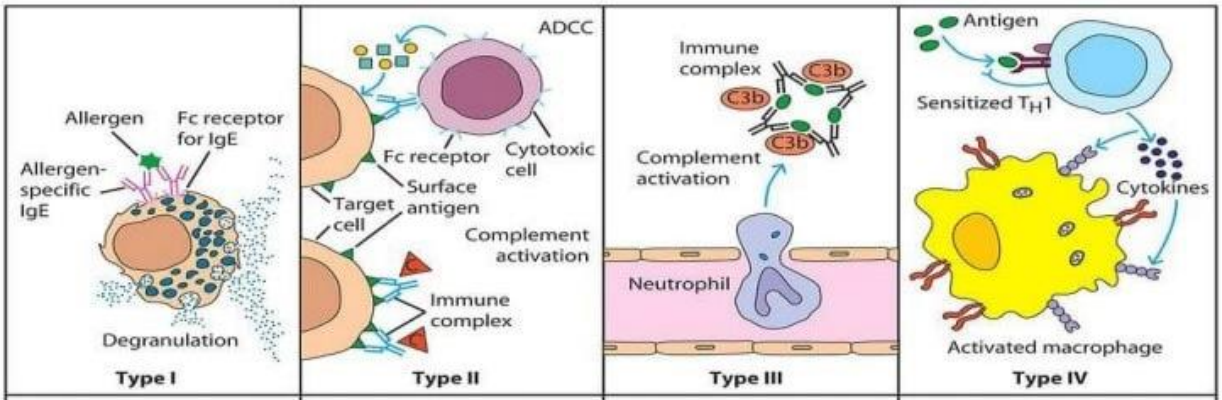
Typically, the body reacts in four ways called hypersensitivity reactions categorized from type I to IV. An example of a Type I is when one gets stung by a bee and goes into anaphylaxis, but can also manifest in hives or eczema. It involves an IgE antibody binding to a mast or basophil cell and causing it to release large amounts of histamine. IgE can be found in the blood for up to 3 days after exposure, which limits the testing window. This is why when you go to your Dr for a skin scratch test it may show up negative despite having an allergy to it.

Type II reactions occur when IgG antibodies bind to a cell and cause its destruction (this is seen in graves or rheumatoid arthritis). It can also result in IgM and IgA antibodies being produced as well. These are found in the blood up to 21 days after exposure to an antigen (the allergen). This delayed reaction makes it difficult to determine a food sensitivity because what you ate one day can affect you 21 days later. These same antibodies can also form complexes, which is a Type III reaction.

Type III occurs when antibodies bind to each other forming complexes, which then get stuck in places where they shouldn't be. This causes inflammation and numerous and variable symptoms. It is seen in conditions such as lupus, rheumatoid and reactive arthritis, lung conditions, and some kidney diseases.

Type IV doesn't involve an antibody, but a cell called a TH1 cell. TH1 cells have a bit more attacking ammunition. Often they start with some trigger - a toxin, microbe, or protein that leaked into the blood stream (often gluten). As the TH cell attacks it also ends up taking the body as the antigen (trigger) is similar in structure to the tissue cells in our body. This is seen in Multiple Sclerosis, Hashimotos, Celiac, and contact dermatitis.

See the chart below for the differences in hypersensitivity reactions:



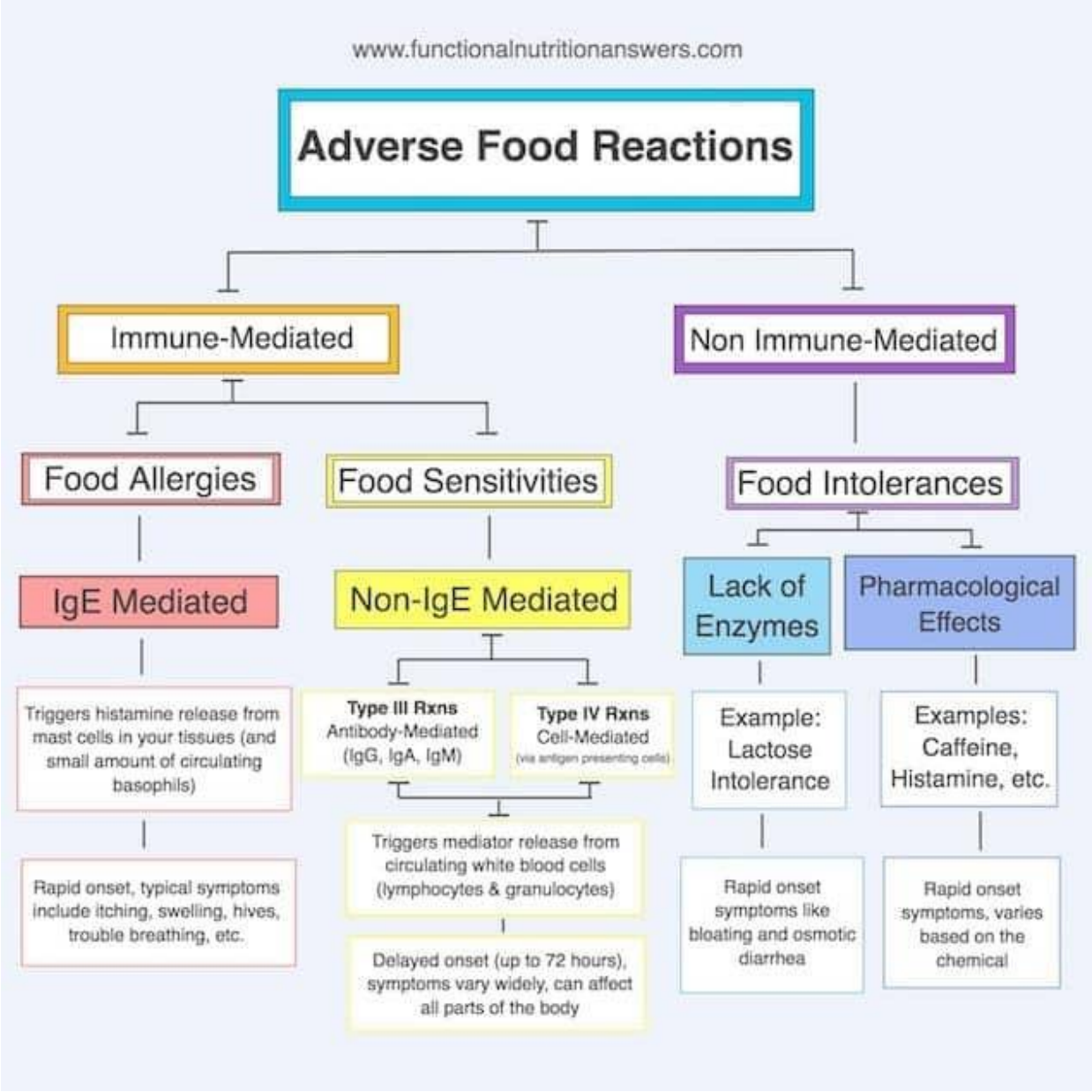
Type I	Type II	Type III	Type IV
IgE-Mediated Hypersensitivity	IgG-Mediated Cytotoxic Hypersensitivity	Immune Complex-Mediated Hypersensitivity	Cell-Mediated Hypersensitivity
Ag induces crosslinking of IgE bound to mast cells and basophils with release of vasoactive mediators	Ab directed against cell surface antigens meditates cell destruction via complement activation or ADCC	Ag-Ab complexes deposited in various tissues induce complement activation and an ensuing inflammatory response mediated by massive infiltration of neutrophils	Sensitized T_H1 cells release cytokines that activate macrophages or T_C cells which mediate direct cellular damage
Typical manifestations include systemic anaphylaxis and localized anaphylaxis such as hay fever, asthma, hives, food allergies, and eczema	Typical manifestations include blood transfusion reactions, erythroblastosis fetalis, and autoimmune hemolytic anemia	Typical manifestations include localized Arthus reaction and generalized reactions such as serum sickness, necrotizing vasculitis, glomerulnephritis, rheumatoid arthritis, and systemic lupus erythematosus	Typical manifestations include contact dermatitis, tubercular lesions and graft rejection

Other than these hypersensitivity reactions that affect digestion, there are also inflammatory responses and intolerances. Inflammatory reactions are the result of a biochemical cascade stimulated by with the immune system to help heal and repair the area. It is often seen as pain, swelling, heat, and redness and like the type IV reactions it sometimes reacts to allergens that it shouldn't. Acute

inflammation is good, but chronic inflammation is bad. Chronic inflammatory reactions are seen in conditions like Crohns Disease or Colitis.

Lastly, an intolerance is an inability to digest a food and it does not create a reaction; for example, milk and lactose intolerance resulting from lack of the lactase enzyme.

Here is another great flow chart showing some of the differences - it is just missing inflammatory reactions; however, they occur after any of the immune-mediated reactions so it can be grouped with them.



About 20-30% of the population has a food allergy or sensitivity. So, how do you know if you are having a reaction to the foods you are eating? Below is a list of some of the most common symptoms, but is not limited to.

TESTING:

To screen for food allergies, sensitivities, inflammation, and intolerances there are a few options. One is to do a skin scratch test to looking for a type I hypersensitivity reaction (if exposed to the allergen within 3 days), an IgG food allergy test (if exposed to the antigen within the past 21 days), a blood test called ANA to screen for an autoimmune condition (T cell reaction). And my favorite, a new test called the Mediated Release Test (MRT) which screens for inflammatory reactions to each food / chemical (this will include a screening to all the hypersensitivity reactions). Lastly, to identify an intolerance one can do a breath test or an intolerance test.

The cheaper option is to do an elimination challenge. It involves only consuming one food for 3 days to 1 week until all symptoms go away; then, introducing one food at a time and screening for a reaction. This is a difficult way to screen for a food allergy and will not take into account IgG reactions which can occur 21 days later.

An additional way to determine food allergies may be via applied kinesiology. There is very limited research; however, in one scientific journal researchers used applied kinesiology to screen for food

allergies and were very accurate. They screened 17 individuals ranging in age from 16-74 with numerous health complaints for 21 different allergenic foods. They cross referenced the Applied Kinesiology screening with food allergy testing and got 19/21 correct (90.5%). This is great news as applied kinesiology is much more cost effective compared to private testing and faster; it also accommodates changing allergies. However, one must also be skilled in applied kinesiology; if not, it may be a good idea to consider MRT testing.

How does applied kinesiology work?

It was difficult for me to get my head around applied kinesiology until the authors of the paper talked about chemical signals sent to the brain via the saliva. For example, if you were to hold a solution of Ipecac in your mouth a signal is sent to the motor muscles triggering you to vomit; similarly, if you eat a food your body does not agree with a signal is sent to the muscles making them weaker. In the research paper they asked the patients to put each food into their mouth allowing the saliva to start to digest it and then ran a blood test after as well as the applied kinesiology testing and got accurate results. Conversely, if someone tastes something that is beneficial the muscles may feel stronger.

How is it done?

It appears to be a matter of being consistent, getting a good sense of a relaxed muscle compared to a strong muscle while using consistent force, speed, and location. This in itself can be extremely difficult, but also incredibly useful once mastered. So, get practicing or see a practitioner with experience in it and of course, if you can afford it combine it with MRT testing and daily tracking to confirm.

If you have any questions let me know...or better yet book in online!
Thanks for reading :)