Yuri Elkaim's

SUPER NUTRITION ACADEMY

MODULE #6 - Lesson 2

Inflammation – the Silent Killer

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Inflammation – the Silent Killer

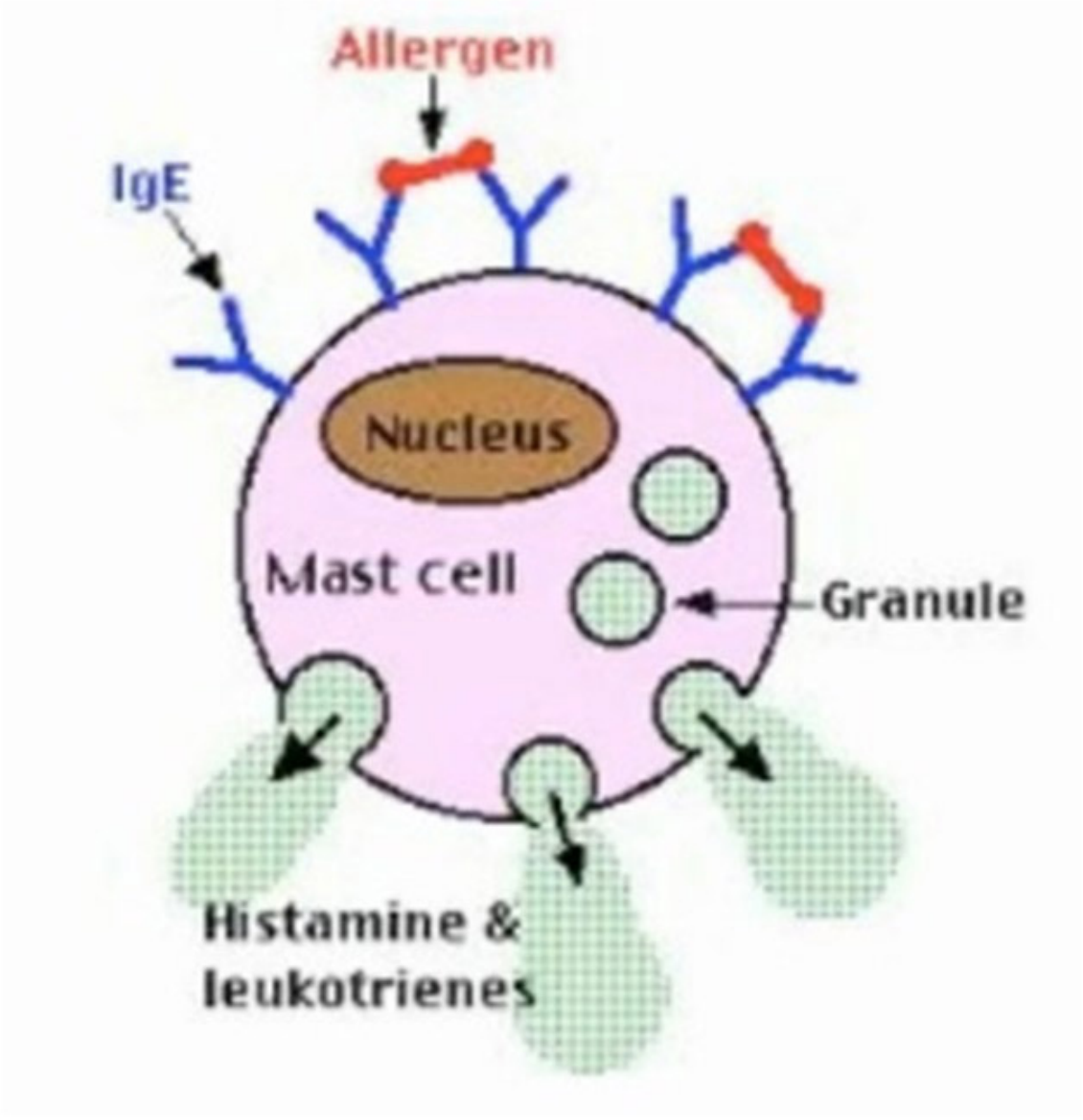
Welcome to Module 6, Lesson 2. Today we're going to be talking about allergies, inflammation, and the start of autoimmune diseases. This is a long lecture, a long lesson so I separated it into two parts.

What We'll Be Covering Today

Today we talk about what allergies are, different types of allergies; the difference between growing up on the farm versus the city, how allergies develop, and how to prevent and treat them.

Before we begin I need to say that allergies are a common issue and we will soon see what they're all about and why they're problematic.

What Are Allergies?



Allergies are an abnormal immune-mediated reactions to ordinarily innocuous materials. Pollen, which is not dangerous becomes an antigen, inside the body for some people, and our immune systems, in some cases, mounts a response and that becomes an allergy. These are just normal things that our body develops a sensitivity to.

The mechanism of how allergies develop is actually really simple. This picture shows that we have a binding of an allergen, let's just call it pollen, binds. This allergen would be denoted by this little red object. It binds to the IgE antibody on the surface of mast cells which are the types of white blood cells that we have in our body. The IgE is what we use to identify full-blown allergies.

What happens here is, the allergen binds to IgG antibodies on the surface of these mast cells, and that stimulates a cascade of events, which releases inflammatory mediators like histamine. That's why things like Reactine and Claritin and other antihistamines are on the market. So, if you get the sniffles, the runny nose, and watery eyes, that's all a response. Histamine, tryptase, leukotrienes, these are all inflammatory mediators that are released by the mast cell as soon as this allergen attaches itself to the IgE antibody.

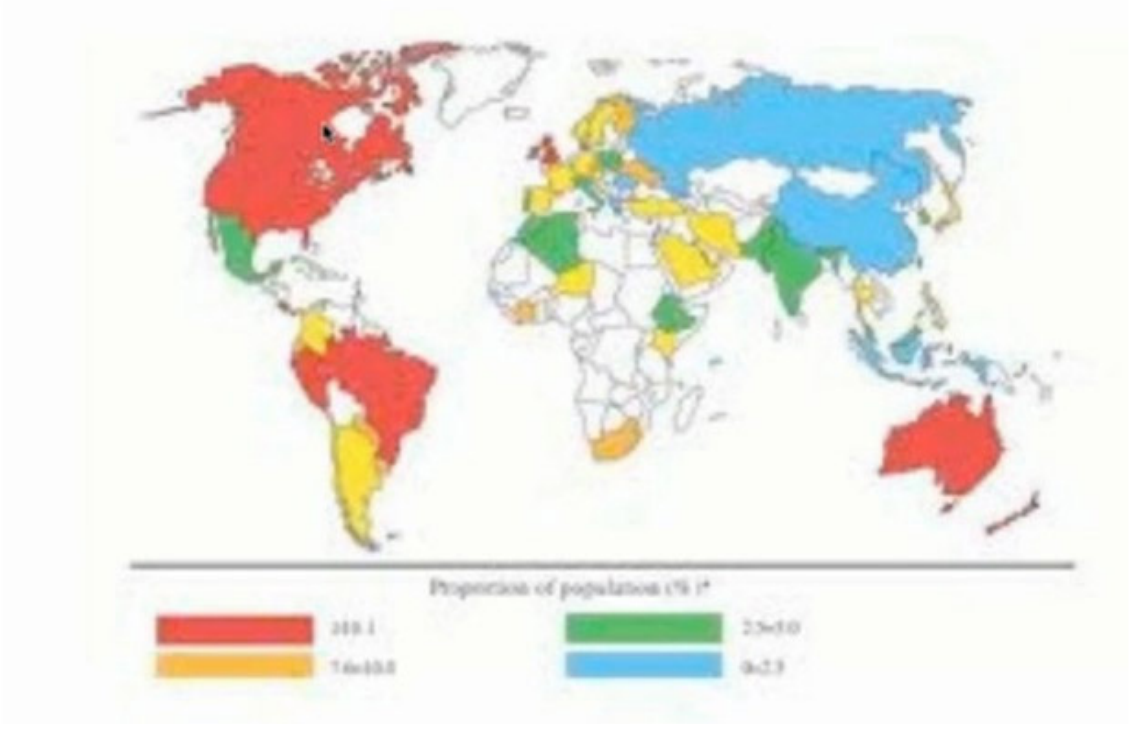
It's kind of like a lock and key. The allergen comes on and locks, and the mast cell basically injects these types of inflammatory mediators. From this we get an inflammatory response swelling. Common allergens are dust mites, animal proteins, plant pollens, fungal spores, and food proteins.

Diseases related to allergies like hay fever, eczema, asthma, anaphylaxis, which is like, that's a full-blown allergy, which can be deadly. Eczema and asthma have become more and more common.

Types of Allergies

We have *immediate* so if you have peanut butter; you have an anaphylactic shock. The timing is within minutes and this usually occurs in the skin, respiratory tract, gastrointestinal tract, and the cardiovascular system. The reactions can range from mild to life-threatening.

We decided to start a vegetable garden in our backyard. I started digging through grass to create space to put in new soil and I was doing this in my sandals which was not a good idea. I have allergies and eczema and asthma and all that good stuff, so, I'm kind of prone to things going wrong if they're present.



So my feet were kind of right in the soil. The same evening I started developing serious contact dermatitis. I've never experienced that degree of eczema in my life. It was on my feet, really kind of itchy, little bubbles. I don't want to gross

you out, but it wasn't good. It took about three weeks to get rid of naturally through tea tree oil baths, hydrogen peroxide, and baking soda.

I had an immediate allergic reaction to something in the soil. It could've been nickel, it could've been some kind of fertilizer, but unless I really knew what it was, having gotten tested through an IgE type of testing at my doctor, I wouldn't really know.

The other thing is that previous reactions don't necessarily predict future reactions. We also have delayed, which are much more common and obviously harder to detect. They're especially more common in younger children, but this is according to the medical community. I will tell you that there are hundreds of millions of adults who are suffering with delayed sensitivities that don't even know about it.

Lesions tend to evolve around 24 to 48 hours. If you have some bread and you notice that tomorrow, you have a rapid heart rate, well, how do you it's from bread? These lesions or symptoms improve with withdrawal of the specific allergen or worsen with the reintroduction. If you continue eating foods, for instance, that you're sensitive to, the symptoms will worsen, but if you stop the symptoms will improve.

If you get a runny nose every time you have bread then you can pinpoint that out as being a specific type of bread, if you stop eating bread, you *should not* be get a runny nose. And when you reintroduce the bread afterward, then you should start getting a runny nose again, unless you've had the time to kind of wean it out of your system.

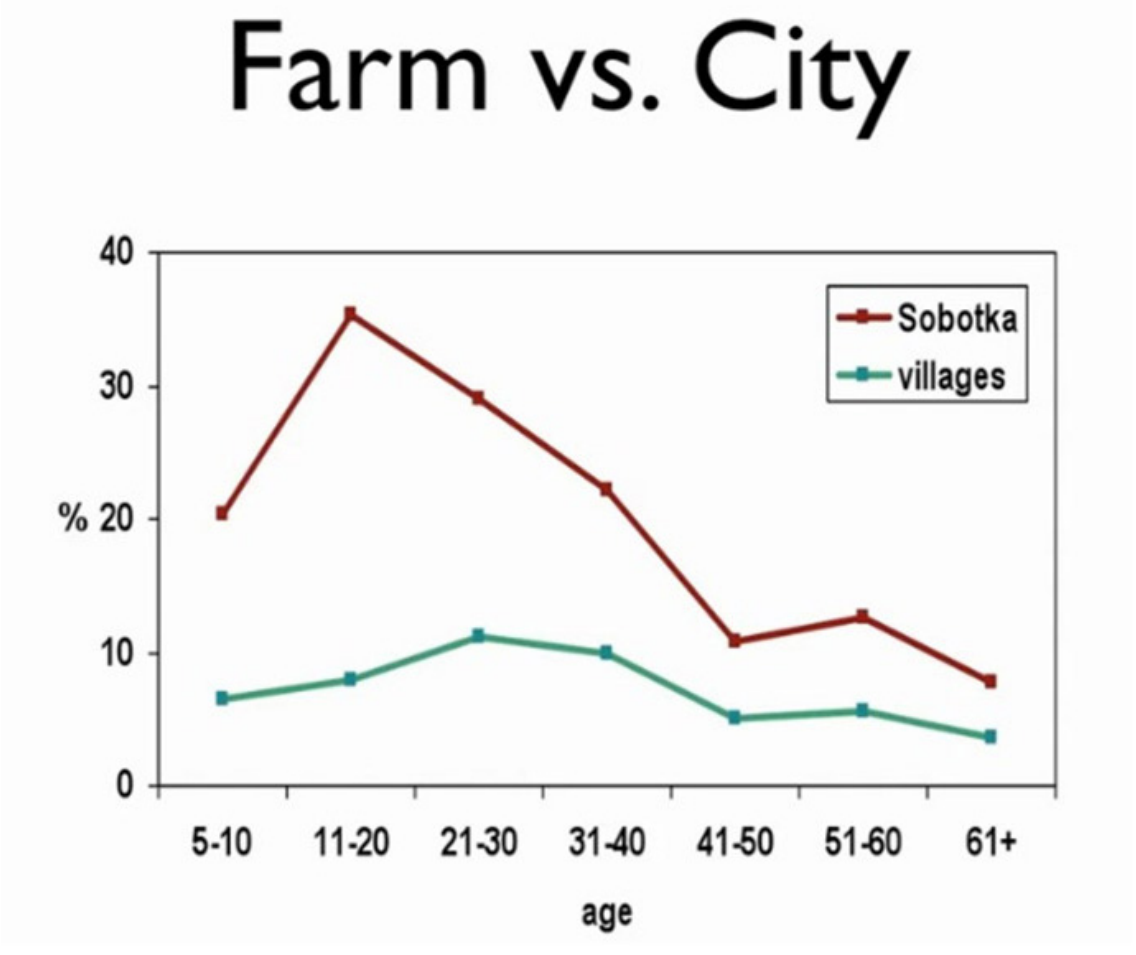
These are generally not acutely life-threatening; however, I'm going to argue that even though they're not life-threatening today these delayed sensitivities, on a long-term basis become a huge foundation for disease. This is something you're not going to hear from a doctor, because they can't detect it based on their testing methods. We see that an allergic response is basically an inflammatory response in the body, and whether that's anaphylactic shock, which none of us want to have, obviously, but at a very, very, very subtle level, if we have this kind of chronic systemic inflammation happening every single day of our lives, that is going to wreak havoc on our health down the road.

Alarming Stats

So, here are some alarming stats. Asthma and allergies are an increasing problem in the developed world and urban areas of developing countries. On this chart of the world, all of the areas in red denote the highest levels of allergies and asthma.

I'm going to be using allergies, eczema, and asthma interchangeably because, generally, they come together. If you're someone like me, who's more of a hypersensitive person, stuff triggers allergies and asthma and eczema, and then you're obviously more prone to other issues.

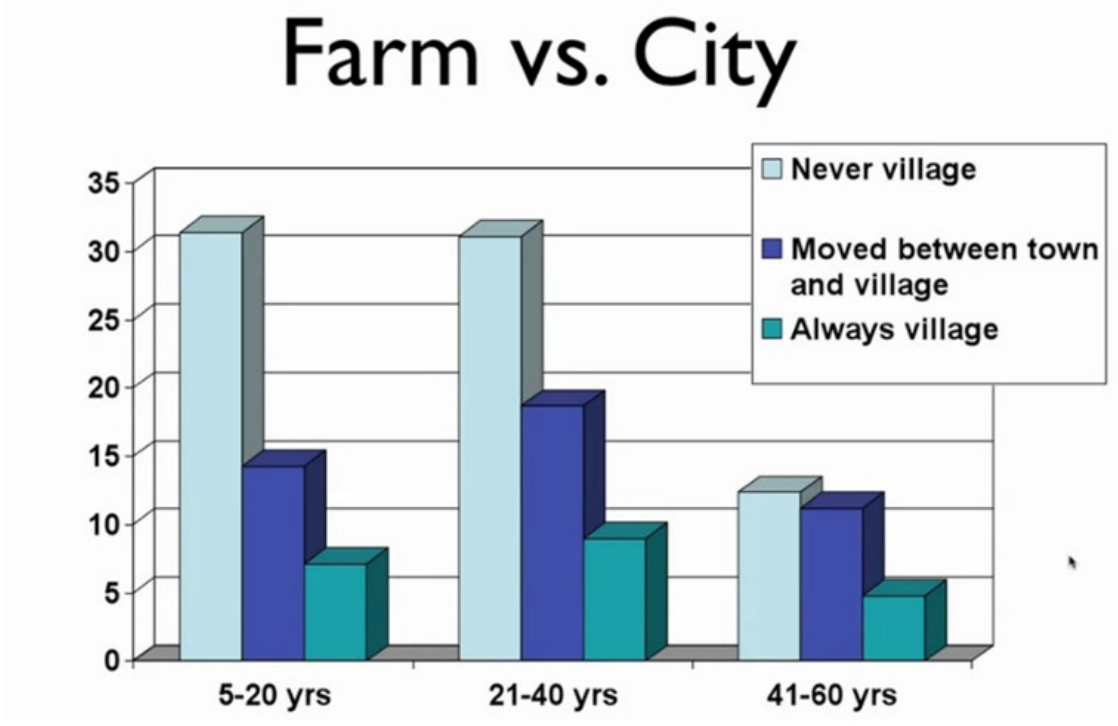
We look at the developed world North America, Brazil, Australia, New Zealand have very high rates of asthma and allergies. Look at the third-world countries; look at Africa. It's almost nonexistent.



The prevalence of asthma and, therefore, kind of allergies is greatest in New Zealand. It's especially pronounced in the urban poor, so in the slums of the developed nations. Those who are in kind of poorer neighborhoods have the greatest degree of asthma and allergies, and there are a number of reasons for that.

It's roughly 30% of the developed world who suffers from asthma and allergies. This is stuff that was nonexistent several hundred years ago. If we look at Africa as an example of this, where it's very underdeveloped in most cases, we don't see any of this.

A study from the journal *Allergy*, in 2007 in that looked at Sobotka a villiage in Poland. What they looked at is the age of the population and whether they lived in the villages denoted by the green line or if they lived in Sobotka, which is a bigger town.



On the Y axis here we have prevalence of eczema and asthma among those populations who lived in the villages, under 10% all the way through life. It doesn't really matter which age. For people living in Sobotka, it was definitely more pronounced. Up to 35% for those between the ages of 11 and 20 years old. Then it steadily decreased over the lifespan. It kind of settled around 10%.

Why are people in the city developing more allergies and asthma than those living in the country, living on the farms? Here is the same study just a different graph showing, on the left-hand bar this kind of gray column here. These are people who never lived in a village. Never lived in a village had the highest levels of eczema and asthma, between 30 and 35%, whether that was 5 to 20 years old or 21 to 40 years old. Obviously, it was quite a bit lower for those 41 to 60, but especially up to 40 years old. Look at the huge difference if they were never in a village, they've always lived in a city.

Now, the second bar, the dark blue denotes those who moved between town and village. Those who moved from either the town to the village or the village to the town, they had much lower rates of asthma and allergies.

And the third, the dark green here denotes that these are people who always, who lived their whole lives in the village.

The Cause of Allergies

As we touched on in the last lesson, it's really inadequate exposure to soil-associated bacteria in early childhood. That's why we're seeing this huge discrepancy between those who were brought up and live in the city versus those who are brought up and live in the country, spend more time on the farms, and are playing in the soil, if you will.

Medical Treatments

Typically, if you have an allergy, it's an inflammatory response. How do we deal with inflammation, whether it's of a muscle and you're a professional athlete or if you have eczema or if you have any kind of inflammatory disease? What does the doctor do?

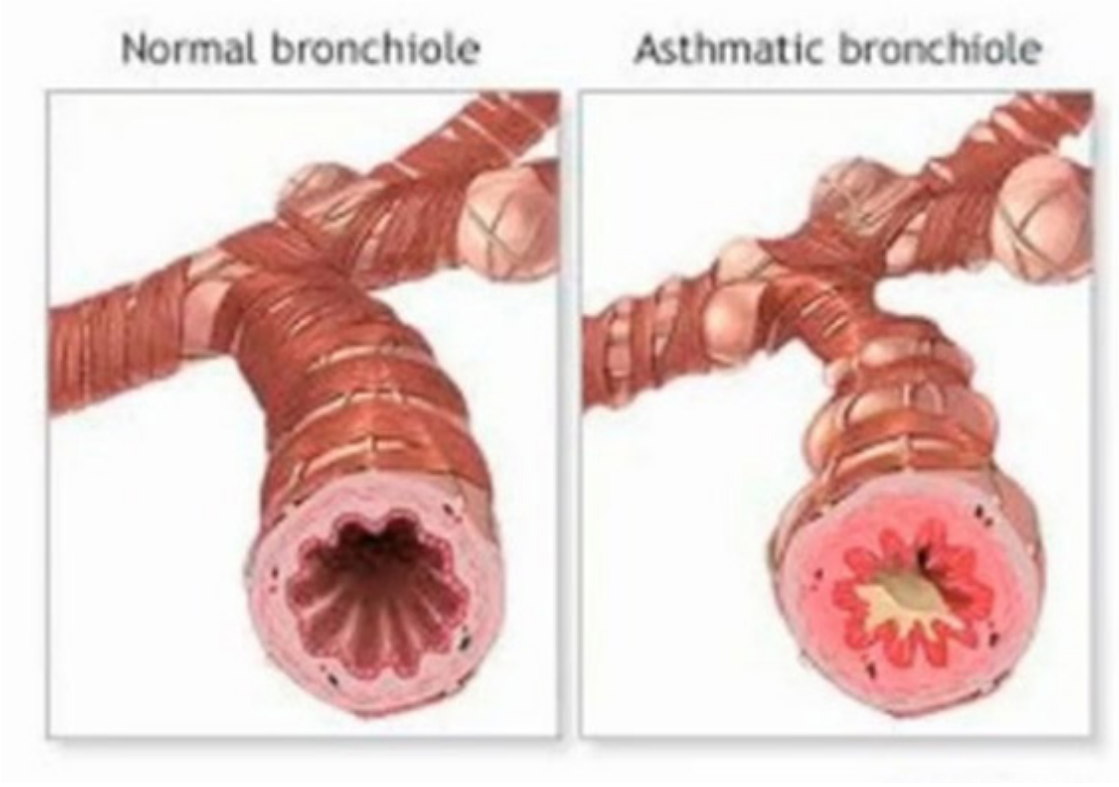
The doctor says, "You know what? We're not too sure what's going on here, but we'll give you some corticosteroids to settle down that inflammation of the body." Whether it's a topical cream or some type of pill to ingest, that's the typical out there, and that's the most powerful out there. They do work but they have a negative impact on your health.

Its allergy season, you go to the drugstore and grab some Claritin and it reduces the levels of histamine in your body. You won't have the runny nose and the itchy eyes and all that kind of stuff. But, again, it doesn't solve the problem.

Observations

So we're taking biopsies of people with asthma, and here's whats happening in the bronchials at the microscopic level. We're seeing a large aggregation of the following: eosinophils, which are related with parasitic infections, but we also know that eosinophils are related to delayed sensitivities; lymphocytes, we're seeing a large amount of lymphocytes, especially helper T lymphocytes and the Th2 lymphocytes, which are pronounced with immune-mediated

response; we're also seeing more scar tissue in the bronchials; and we're also seeing excessive muscular development.

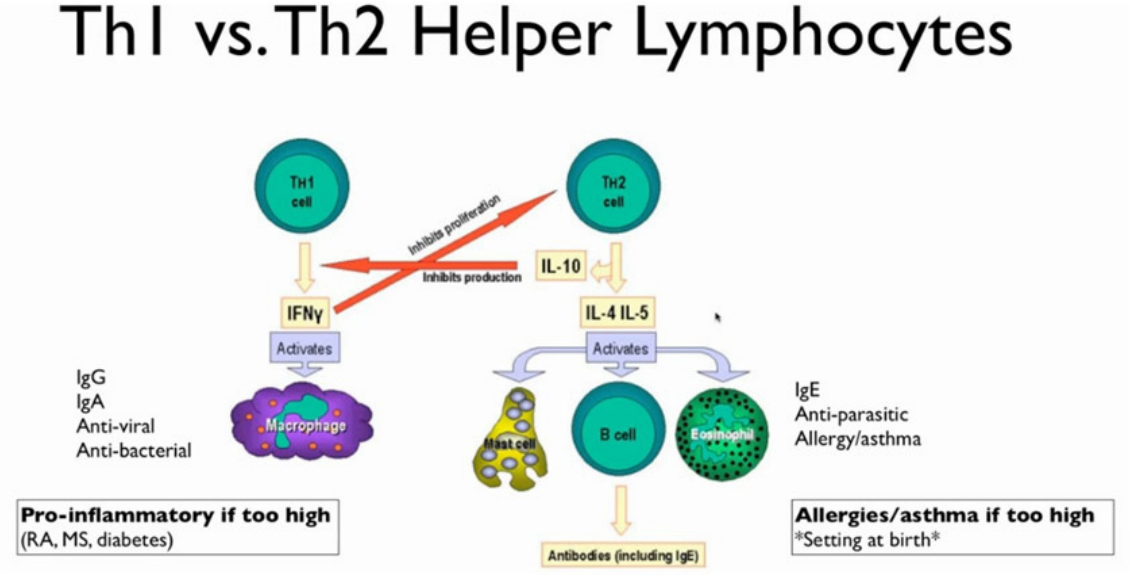


Having had really bad asthma when I was a kid, up until my midteens. It has gotten better as I've improved my diet and cut out allergens over the last ten years. I rarely ever use my puffer. One thing I can tell you is, if you have kids or if you yourself suffered from asthma is that I remember specifically times I would be working so hard to breathe. Where it's like you feel you can't even get oxygen into your body.

This is one of the reasons why we see this excessive muscular development, because the muscles in the airways work so hard to try and extract oxygen from the air that you see this excessive muscular development. So, these four observations are seen in people with asthma, and these all are indications that something is going.

Development of Asthma

How does asthma develop? Well, we have this airway mucosal inflammation, this inflammation of the mucosa in the airways and the lungs, the bronchials, and we see the greatest increase in helper T lymphocytes, this Th2 branch, the immune-mediated one, where we have the lymphocytes, the antibodies being proposed as a result. We also have the presence of other inflammatory cells like the eosinophils, the mast cells in some cases, and, again, these are stimulated by this Th2 branch.



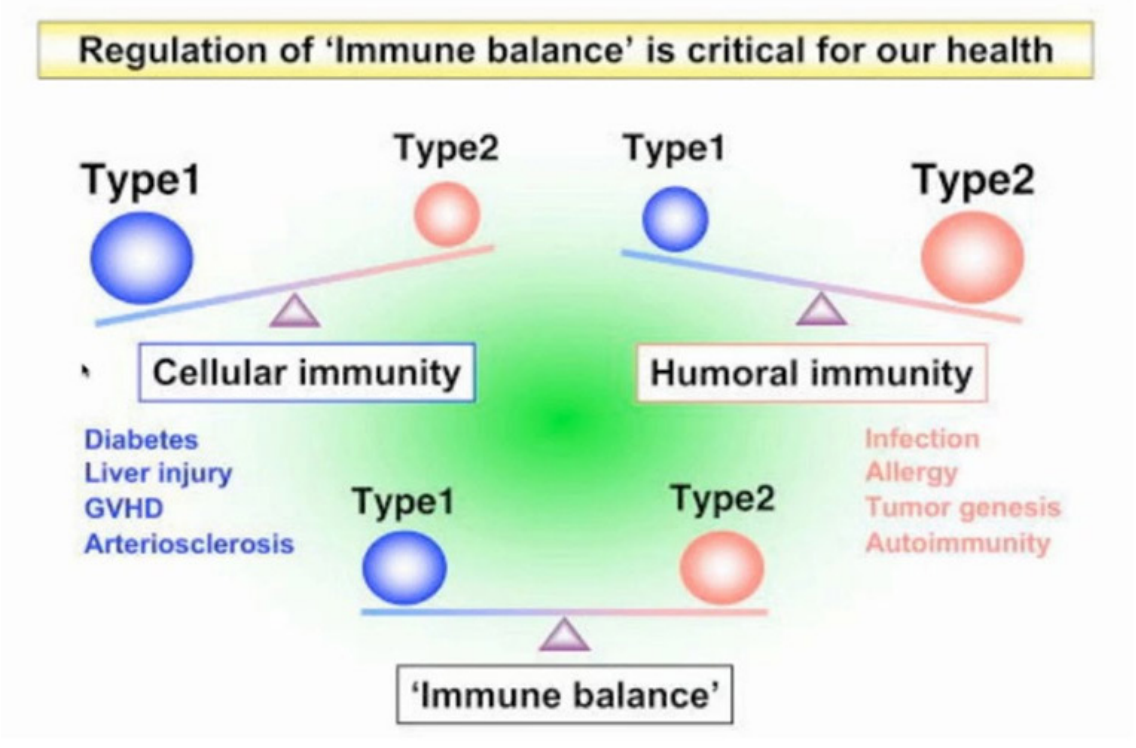
Helper T cells, which help regulate the immune system, by giving off a couple different types of helper T cells: Th1 and Th2. These are still within the branch of helper lymphocytes, the white blood cells in our immune system. The Th1 cell is associated with more of this kind of inflammatory response; they're pro inflammatory, they're related to this delayed-sensitivity stuff, so if you have a food sensitivity to wheat, for instance, and it doesn't show up on an IgE test like a skin prick test, it doesn't show up, it will be related to this Th1 pathway. We have the IgG activation or the IgG antibodies involved, the IgA antibodies involved.

Anytime we have IgA interactions, it's usually related to the mucosa, the lining of the cells, gut, or airways, where there's an interaction between the outside body and the inside body. They're like the bouncers at a club manageing what comes in and out.

The antiviral-antibacterial side is related to the Th1 branch of this immune response. Now, this is pro-inflammatory, so we have the all these different immune cells that are involved, and if the Th1 pathway is continually over activated, it can lead to autoimmune disease, whether it's arthritis, multiple sclerosis, type 1 diabetes.

Let's say you don't have a full-blown IgE antibody response to milk. Let's say you have a delayed sensitivity to milk. Actually, below this video I've included another video where I take you through one of my recent IgG food-sensitivity tests. This is so powerful because it gives you tips on which foods you should avoid for a while.

Let's say you have a sensitivity to milk, and if you continue to drink milk for too long, you're overstimulating this Th1 pathway, overtime this becomes chronic inflammation throughout your entire body.



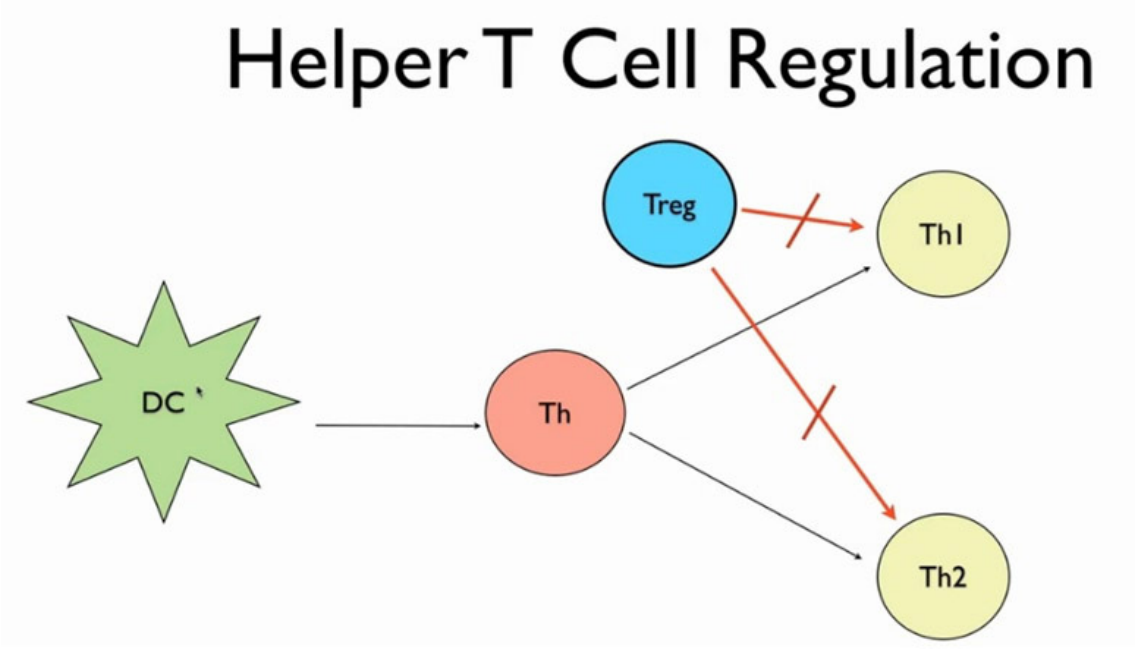
The Th1 is more the cell-mediated response; the Th2 is more the immune-mediated response. Now we have antibodies because the Th2 cell, it releases cytokines like interleukin-10, interlueukin-4, interleukin-5, which are messengers that activate the mast cells to produce that histamine type of inflammation response; the B cells, start producing antibodies IgE; and the eosinophils, which are related to antiparasitic types of infections. The Th2 pathway is what's related to the allergy and asthma side effects. If there is excessive stimulation in the Th2 pathway, allergies and asthma start to develop.

The Th2 pathway is like our factory setting from birth. Our immune system has not developed at a young age, I'm talking about several months old. We have not developed this cell-mediated Th1 pathway yet. So, the tendency from this age is to develop antibodies and this immune-mediated response. As we mature, and get more breast milk which helps us develop this cell-mediated side, we start regulating our immune responses more effectively. It's not always this huge allergic response based on the Th2 path. We start to moderate things as we develop the Th1 branch.

The body's in homeostasis, which is balance at any level, and the immune system is just one more example. We have the cellular immunity here, which is cell-mediated immunity, meaning that there's more type 1, the Th1 pathway is more activated than the type 2, the Th2 pathway. When we see autoimmune diseases like type 1 diabetes and even type 2 diabetes. We're seeing this is chronic inflammation, which leads to type 2 diabetes, type 1 diabetes, liver injury, heart disease. We know that inflammation causes problems in the blood vessels, so that, obviously, is correlated with atherosclerosis and cardiovascular disease. It's not that one or the other is better, but what we need to achieve is balance, and that's why these T helper cells are really important. The T regulatory cells are very important for the immune system.

In the humoral immunity, if we're more of an allergic person, then we have an over activation of type 2 response. Here we have infections, allergies, tumor growth, and autoimmunity. The autoimmunity can really pop up on either side, but it's typically more related to the Th1 pathways. What we are looking for is this perfect balance between type 1 and type 2, or the Th1 and Th2 pathways, to really have a well-regulated immune response to whatever comes our way.

Can we control this? Well, yes and no. It's tough to really say. There are things we can do, but it's tough to tell if, for instance, how much of your immune is Th2 dominant versus Th1 dominant, unless you understand that you're more of a hypersensitive person, which, in some cases, might be more activation of type 2, but still tough to tell.



For instance, the dendritic cells lead to the activation of the helper T cells, and the helper T cells give off the Th1 or Th2 pathways. The real importance here is right here, in the regulatory T cells. Remember, this all comes from the thymus gland. All the T cells mature in the thymus gland, making it an important for overall health.

I did in research on the autoimmune condition I have, alopecia, and even though I've regrown most of my hair, some of the doctors just say no matter what I do it's going to come and go, but I don't believe that. I believe that and I've noticed when my diet is clean, when I remove those food sensitivities, things definitely improve.

I also used a very interesting scalp tonic that was developed in Germany called ThymuSkin. It was actually a formulation from, I believe a cow or calf thymus, and it gives my body more of these regulatory T cells. That's really important

because what those regulatory T cells do is, they inhibit over activation of the Th1 and Th2 pathways. For somebody like me who might have an over activation of one of these, there is a deficiency in the regulatory T cells because things are out of whack.

Bringing those regulatory T cells into my body through my scalp, for instance, makes a huge difference. I'm not too sure of the specific dietary protocols to increase regulatory T cells, but all you can really do is support your immune system with a healthy diet.

This is an observation that I made with some of my own experimentation, what would be interesting is to see if that kind of same external tonic could work with rheumatoid arthritis or multiple sclerosis, because the idea is that if we can get more regulatory T cells into the body, that's going to help the immune system balance. It would really be interesting to see how that would work out.

Microbes and Allergies

I am to go back to the farm-versus-city hygiene hypothesis. As I may have touched on there's an inverse relationship, based on a number of studies now, between hay fever and family size. The larger the family, the less hay fever there was. Why does that happen? In theory the youngest kid in the family should have the strongest immune system because they're exposed to more microbes, germs, than their older siblings.

Allergies and asthma are less common in the developing world, especially in farming-based economies. Childhood exposure to animals is associated with lower rates of allergy and asthma. Imunology has really flipped itself the last couple of years, because the old thinking was, even when I was young my immunologist and my allergist told me, "You have asthma. You have eczema. Don't have any animals in the house. No carpets; everything should be clean." and that's really the opposite of what we see is benificial for early-childhood development of a good immune system. So, growing up with pets, especially dogs is associated with lower rates of allergy and asthma.

And that's a great thing for our family, because we have Oscar was brought up with our two dogs, Jax and Layla from birth. My mom would always say the dogs are outside; now they're putting all their stuff on the couch and they're licking him and that's not good. That's actually the best thing that could possibly happen for him. What they're doing is, they're taking bacteria and germs from outside inside, exposing him to more of that type of stuff. In addition to the fact that we live in the country now, he has a lot of soil and backyard to play around. So, if you've got pets, especially pet dogs, cats are helpful as well, but the research has shown that two pet dogs is one of the most protective things you can do for your kids and one of the best things you can do for helping them develop a strong, healthy immune system.

Here's a study on this that was done in the *The Journal of the American Medical Association*. They looked at the percentage of children who were: allergic to dogs, cats, indoor-outdoor, atopy, or sero-atopy, which is a positive IgE response to an allergen. Those are the six categories.

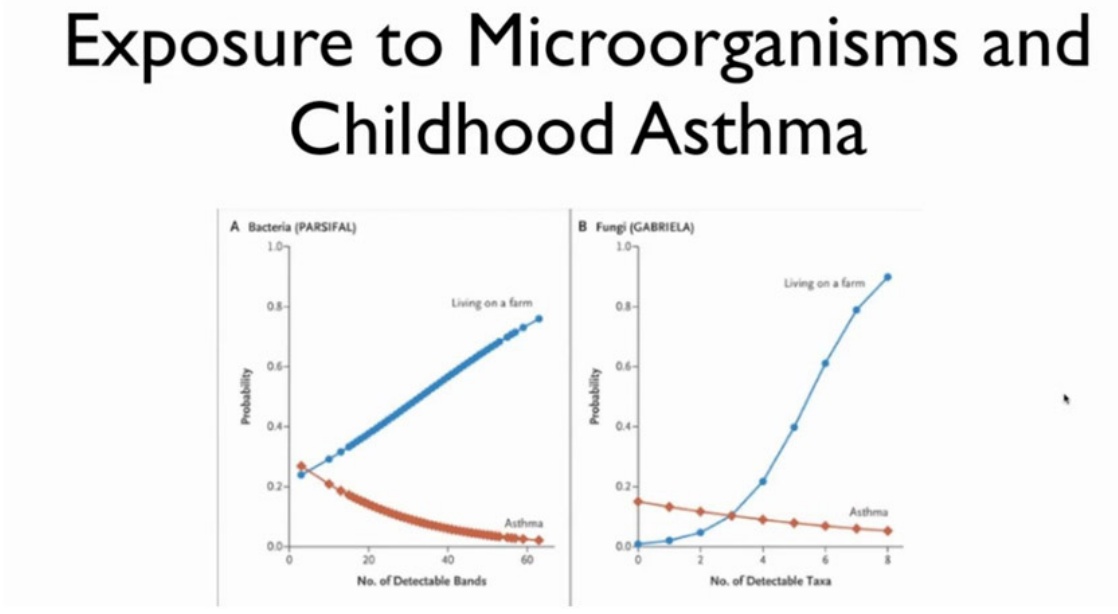
Percentage of children allergic to dogs, cats, outdoor/indoor allergens, have atopy or positive IgE to an allergen.

The light-blue bar here are those who have no dogs or cats, so no pets. The yellow bars are those kids who have one dog or one cat. And the green bars on the right-hand side are those kids that have two or more dogs or cats. What they saw across the board is that kids who have more dogs or cats have the highest percentage of allergies to dogs, to cats, outdoor and indoor allergens, eczema, and IgE responses more or less.

Look at this: the lowest allergic response to dogs, cats, outdoor and indoor allergens, eczema, and IgE responses across the board. So, growing up with two dogs is highly protective against *all* allergies, because the dogs run around in the soil and everywhere. The key here is that the dogs are going outside. So, if the dog stays indoors all day, like a condo in the city, you're not going to get the same effect, but if the dog is able to go outside, do its thing, eat some dirt, dig his snout in the grass, eat some worms, it brings that back into the house, you'd think that's not a great thing because now it's getting dirty and whatever. That's one of the best things we can do for our kids.

So, it seems, ironically, that the earlier you are exposed to a wide variety of germs, the better off your immune system's going to be. It's very, very counterintuitive to what we have been led to believe, with all this, "Oh my God. I gotta wash her hands with antibacterial soap," and, "Oh my God. I can't get any germs. We've gotta clean our hands all the time. As a young, young kid, you just want to be dirty a little bit more.

So, the hygiene hypothesis says that the rise in chronic inflammatory diseases: allergies, eczema, asthma, especially allergies and asthma, is an unintended consequence of a reduction in exposure to microbes the first years of life. This refers to exposure to soil-borne microorganisms early on in life and as early as possible.



This is another study done in *New England Journal of Medicine*, and they looked at the exposure to microorganisms and childhood asthma. What we have here is the red curve asthma, and the blue curve is the percentage of people living on a farm. What we're seeing here is that on the Y axis, we have bacteria; on this Y axis we have fungi. So, those living on a farm have the highest degree of exposure to bacteria, they have the highest degree of exposure to fungi at an early age, and those with asthma have a very low probability of exposure. There's this kind of inverse correlation between living on a farm and having less asthma as it pertains to being exposed to more microorganisms.

Bacteria and Immune Health

Certain bacteria strains induce a production of regulatory T cells. We talked about how important the regulatory T cells are; now we're going to look at *why* bacteria's so important. We're also going to look at the importance of probiotics. Dietary-wise there's really not much we can do food-wise; however, with the right bacteria, we can really start to regulate our immune system.

Certain strains of bacteria induce a production of regulatory T cells, which means have more immune system balance. And, specifically, lactobacillus and bifidobacteria seem to be very helpful. You may have seen these in yogurt, fermented foods, probiotics.

The good thing about these bacteria is that they promote an even expansion of various bacterial cultures, we don't just want two narrowly defined bacterial cultures. Lactobacillus and bifidobacteria promote the expansion of different bacteria as well, which are good inside the gut. And they communicate with the immune system via toll-like receptors, or TLRs, in the epithelial lining those cells line the gut and airways.

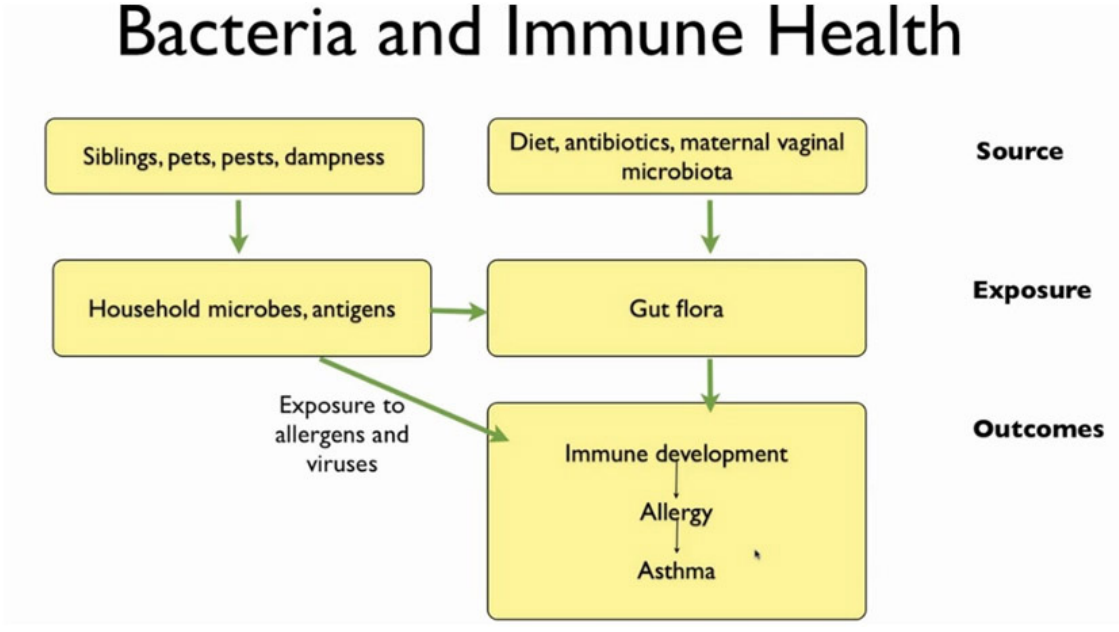
We have this bacteria which is communicating with our immune system. Having the right microbe, lactobacillus and bifidobacteria as an example, in high numbers and a diverse microbiome, or gut flora, is what's most important. We want the right kinds in high numbers and a diverse amount of bacteria in our colon.

In our colon we have 400 different types of bacteria, and it really depends on what you're exposed to, the types of food you eat, what that makeup will be, so it's really important to have the right makeup, and it's obviously tough to tell unless you do a stool analysis which is what.

So, what's interesting here is that there was a study that was done with pigs and piglets. What they found was that the mother's poop was very high in the bacteria that was necessary for her piglets. We know that pigs roll in their own poop and they eat their stuff but that is actually one of the best things for their

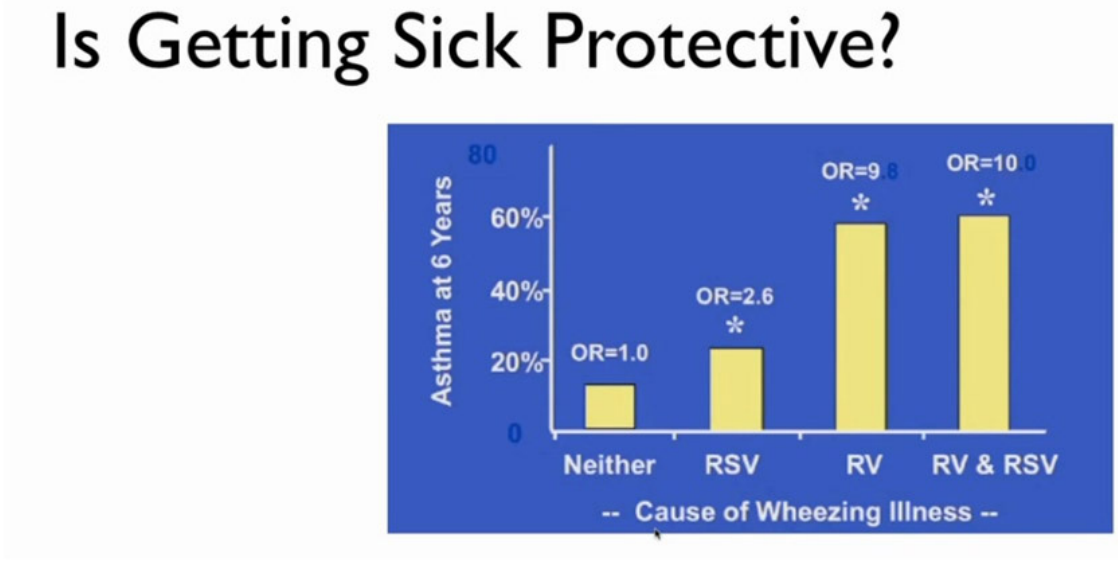
health because they live in proximity to each other; they live in proximity to their stool. Within mom's poop, there are specific bacteria that the piglets need to develop their immune system.

What's also amazing is that bacteria from vaginal delivery in humans and breastfeeding are necessary inoculants for the development of a healthy immune system in the baby. We've seen that those babies who are delivered via C-section generally have lower immunity, different bacterial makeup in their gut than those who are delivered through vaginal delivery. That's because there are secretions in the vagina that give off that specific bacteria that we need as kids.



An immunologist from the University of California, San Francisco, basically summed this all up by saying… We have the source of, typically, microorganism, right, so siblings, pets, pests, dampness; these are all sources of where we could get contact with germs and stuff. Then we have the diet, antibiotics, maternal vaginal microbiota, and they become exposure. We get exposed to these in the household, different antigens through the air, foods. Our gut flora are also exposed to these microorganisms.

So, the exposure to allergens and viruses leads to the immune development, which can lead to, in some cases, allergies and asthma. Again, it really depends on what the makeup of all of this is. If you have very little exposure to allergens or even viruses in some cases, at a young age, that could be protective or not protective in terms of immune development. Obviously, if you have a weak immune system or an immune system that has not been exposed to the right microorganisms at a young age, you're more likely to develop allergies and asthma as you age. I'm talking about two, three, four, five years old and so forth.



I just mentioned that being exposed to allergens, being exposed to microorganisms and bacteria and germs is a good thing in terms of populating our gut flora with the right bacteria. I also mentioned that viruses, being exposed to viruses may be protective but also may not be protective.

So, Is it better to get sick so that you develop kind of an immune tolerance to that the next time that same virus presents itself? It's kind of like vaccination? You get a vaccination to prepare your immune system for the next time that specific virus or antigen will be presented to the body.

There was a study done in 2008 with three hundred children, and had their parents report if the child had a cold in their first year of life, then they looked at the proportion that were asthmatic at the age of six. They found that RSV,

respiratory syncytial virus, a common cold strain at a very young age, and then we have RV, which is rhinovirus.

For kids who were not sick in the first year that was actually the most protective in terms of the lesser development of asthma at the age of six. We see that less than about 15 percent developed asthma. For those who got a cold via the RSV virus, there was about 20%likelihood. For those who got the rhinovirus, which is the common cold, there was a 60% likelihood that they would develop asthma by the age of six. And those who had both rhinovirus and RSV had a 61% to 62%likelihood of developing asthma by six.

You'd think getting sick the first time is a good thing in terms of building your immune system, but in this case we've seen that the rhinovirus actually contains a flulike viral strain and may have an asthmagenic virus. So, it might actually be a trigger for developing asthma; Specifically the rhinovirus, which is the common cold.

It might not necessarily be the best thing to have your kid get sick, depending on, strain, within their first year of life. Not that you should keep them in a bubble but it's good to know this information exists.

Can Probiotics Help?

Can probiotics help? Well, the short answer is yes. A study in *The Journal of Pediatrics* in 2009, looking at the effects of probiotics for six months each day on the cold and flu symptoms in three- to five-year-olds, and they were followed for one year. Goup one was fed just lactobacillus acidophilus; group two was given lactobacillus acidophilus plus bifidobacterium, both versus just one; group three was given a placebo.

Here are the results. Group one, the lactobacillus acidophilus group, reduced the fever incidents by 53 percent; cough by 41 percent; antibiotic use decreased by 68 percent—that's huge!—and days absent from school, for instance, 32 percent. That's incredible. By taking probiotics each day over six months, incredible.

Group two was the combination of lactobacillus plus bifidobacterium. Watch this. Reduced fever incidents by 73 percent; reduced cough by 62 percent; antibiotic use, down 84 percent; and days absent from school or kindergarten, 28 percent. Phenomenal, phenomenal numbers.

Based on this information, it's very, very straightforward to think that, well, if our kids are not being exposed to soil—even if they are—it's still a great idea to supplement with probiotics or even more fermented foods where they're going to be getting naturally occurring good bacteria into their gut. This stuff is so important, as we've seen, right?

You could argue that our health is really dependent on the germs that we're exposed to at a very young age, so very, very powerful stuff. Supplementing with probiotics or eating fermented foods that are probiotic-rich, very powerful. We're talking about sauerkraut, miso, kefir, yogurt—as long as it's organic—that kind of stuff. Incredible.

How to Reduce the Risk of Allergies

Here's how to reduce the risk of allergies. The old-school thinking was to breastfeed; eat fish once a week; no smoking in the house; remove, reduce indoor allergens; and remove sources of allergens, like pets. That's the old-school. You go to the allergist back in the 1990s, when I was young, that's what they'd recommend.

How to Reduce the Risk of Allergies

Old School (1990s)	New School
Breastfeed	Breast feed for at least 6 months
Eat fish once a week	Live on a farm
No smoking in house	No smoking
Remove/reduce indoor allergens	Conceive in the fall, deliver in spring
Avoid/remove sources of allergens, especially pets	Have many children (or day care)
	Encourage of probiotic-rich foods/vitamin D
	Let kids play in the dirt
	Use antibiotics with extreme caution

The new school recommends: breastfeed for at least six months, if not more; live on a farm, no smoking because smoking is poison, conceive in the fall, deliver in the spring, based on how the baby's immune system develops up to about four months. I don't know if it really matters that much, but deliver in the spring, after the flu season tends to be a good recommendation. Have many children and if you don't want to have a lot of children, put them in day care or some type of group on a continued basis, where the kids are exposed to different germs and different kids; encourage the use of probiotic-rich foods and vitamin D so get some sunlight.

Allow your kids to get out and get some sunlight unexposed for maybe a couple minutes; maybe three or four minutes a couple times a week, then put the sunscreen on and cover them up, just so they get that vitamin D right into their body. Let kids play in the dirt. Let them get dirty, let them eat the soil. It's all good. Use antibiotics with extreme caution, and, in most cases, do not use them if you don't have to.

Oscar turned one while we were in Mexico. He had not been sick up until that year; no nothing. We got to Mexico, there was a girl who was one and a half, two years old; she was sick. She was in the baby club; Oscar was in the baby club as well. He got sick.

We don't know what kind of, I don't know if it was the rhinovirus or something else. Anyways, the doctor recommended and prescribed some antibiotics. We refused to give them to him, and he kind of just rode it out. It took him a couple days to get over it. I think, in retrospect, it was the best thing we could've done, because we increased his probiotic intake and then let his body do its thing.

This is the new-school thinking, and it really falls along the lines of the hygiene hypothesis that says we are too clean, we're not exposed to enough microbes at a young age, and we need to flip things around.

What if You're NOT a Child? Is it too late?

But what if you're not a child? Is it too late? Can you still reverse all these allergies?

I have asthma, I have allergies, and I have an autoimmune disease. Am I toast? Should I just call it a day? Well, no. We will talk about more the adult-stuff in the next lesson.

Coming in Lesson 3

In Lesson 3, we'll take a deeper look at food allergies and sensitivities. We'll talk specifically about the danger of chronic inflammation, which we've already alluded to in this lesson, how autoimmune diseases develop and the right diet to prevent and manage allergies. It's going to be an interesting and valuable lesson.

Once again, at the bottom of this presentation, I've included the video I'll include the video in the next lesson as well so you can make some comparisons when we're taking about the food allergies. Have a look at it. It's a recent IgG food-sensitivity test I did, and I'm going to show you exactly which foods I'm sensitive to, some of them I knew; some I had no idea about, and I'll help you make some sense of it all so that you can do your own IgG sensitivity testing and really improve your health dramatically by using the foods that are right for you.

That's it for Lesson 2. I hope you enjoyed it and I'll see you in Lesson 3.