

# LEAKY GUT AND AUTOIMMUNE DISEASE

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Leaky gut, inflammation and autoimmunity affects your small intestine, which is, roughly, 25 feet long (*Figure 1*).

In the event you have an autoimmune condition, which means your body is actually attacking its own tissues as foreign objects, you can do something to reverse this condition. Because **80 percent** of your immune system is located in your gut, you have a **HUGE** ability to control your body's responses (*Figure 1*).

Let's talk about functional medicine. The ultimate goal, when you have a leaky gut, should be to heal and seal your gut/small intestine - yes, all 25 feet. This can be done **without** the use of drugs. Your body has the ability to heal and seal your gut without drugs. Medications just cover up your symptoms.

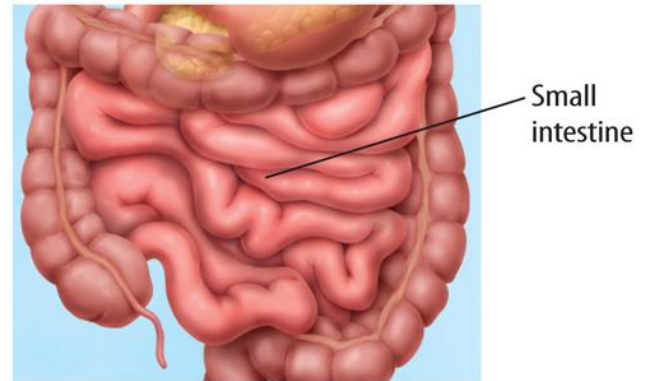


Figure 1

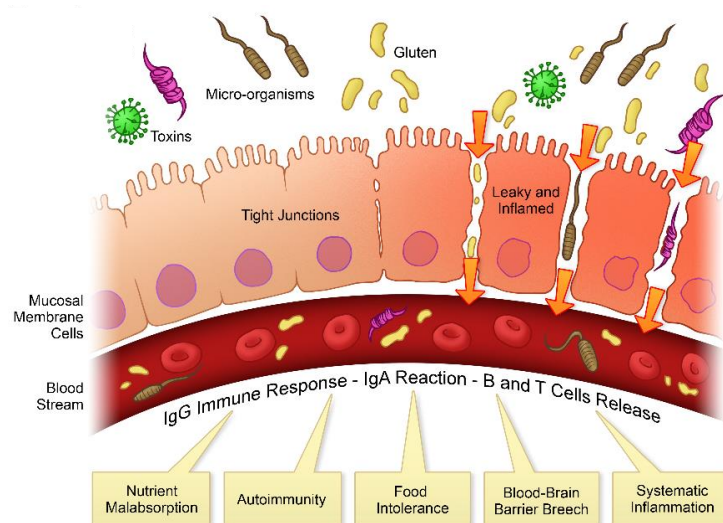


Figure 2

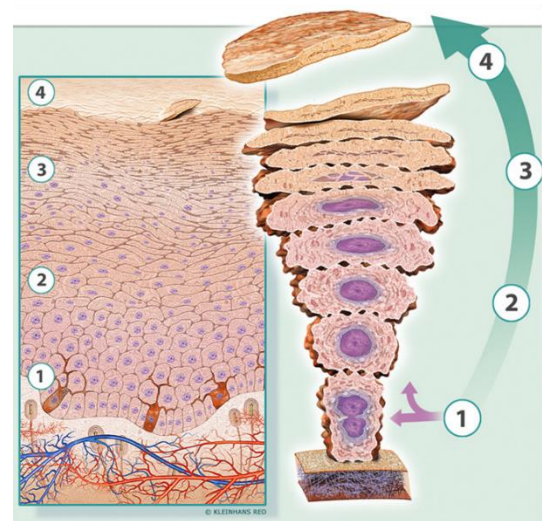


Figure 3

Let's look at the small intestine. The picture on the top left is a picture of your gut or small intestine (*Figure 2*). The picture to the right is a picture of your skin on your thumb (*Figure 3*). They are side by side so that we can compare the two and discuss the differences between skin barriers and gut barriers.

When you're looking at the skin on your finger (*Figure 3*), you can see the bloodstream is located at the base of the example (see Point 1 in figure 3). In order for a cut to actually bleed, you have to cut through, approximately, **10,000 skin cells**. That's a GREAT barrier between the outer layer of the skin



and the bloodstream flowing beneath. God designed us to have a great skin barrier for protection! Now let's contrast this with the picture you see to the right (gut), which is the small intestine. Notice the picture on the right (gut/small intestine) is **ONLY ONE CELL THICK** to your bloodstream!!!!

When it comes to your small intestine, it's only **one cell** thick versus the thumb's skin 10,000 cell thick. This is a drastic difference! Don't forget this one cell barrier is protecting your small intestine that is 25 feet long and houses **80% of your immune system**. **That's an extremely poor barrier for something so large, which can easily lead to leaky gut and chronic inflammation.** THIS IS A KEY POINT....

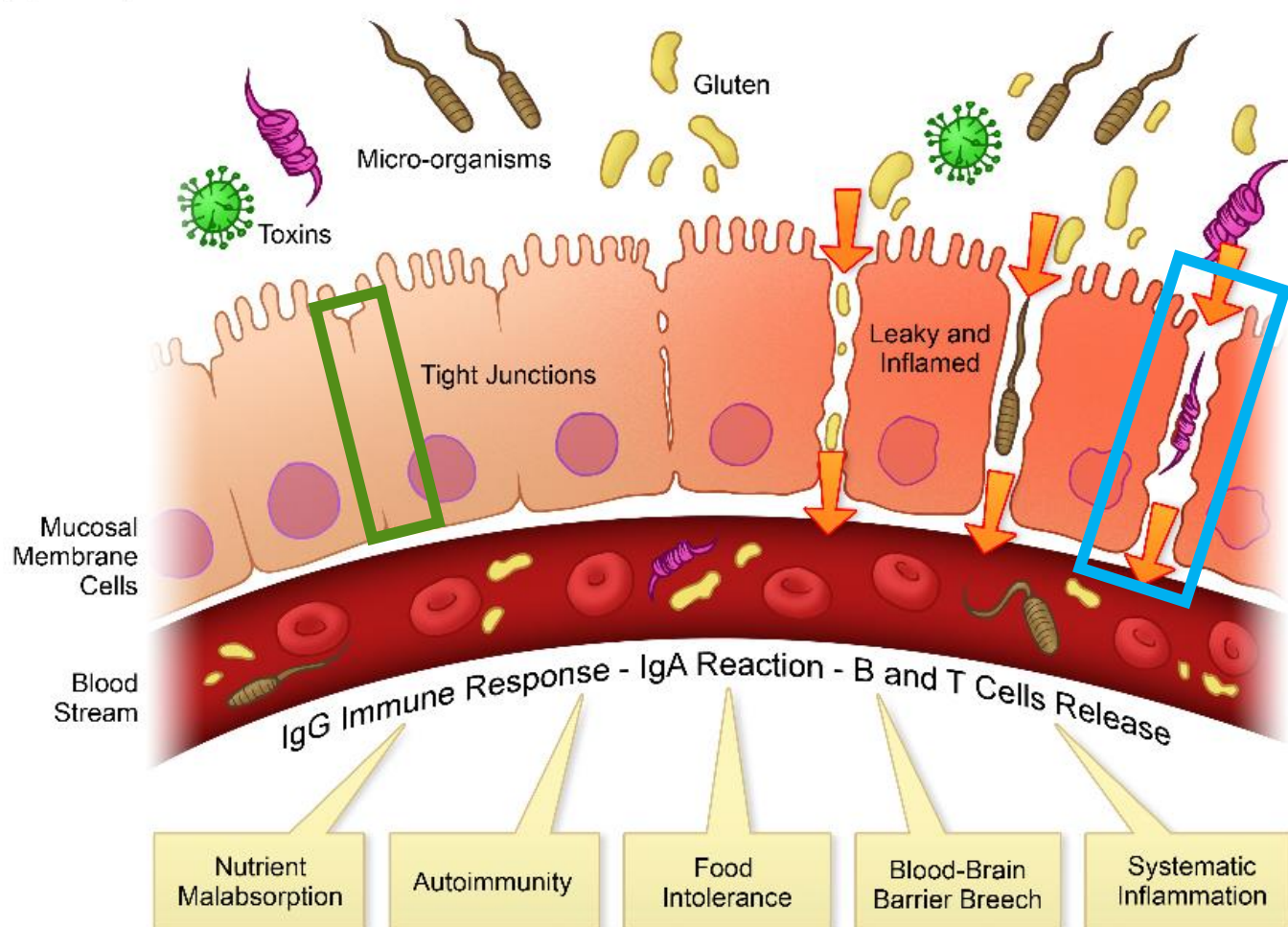


Figure 4

Let's continue to the next example, which is a blown up picture of your gut (Figure 4). As a recap, your bloodstream is at the base of the structure, separated by a one cell thick barrier. When you have a tight junction, as indicated in the **green rectangle box**, this means the cells are basically meshing together tightly, not allowing anything to pass into your blood stream (no inflammation will occur).

When you have leaky gut the cells starts to deteriorate and the junctions between the cells widen. THIS IS BAD. See **blue rectangle box** for leaky gut cells.



Figure 5 - This is a picture of my house (leaky)



Figure 6 - Fixed NOT leaky

Let's use an analogy to make this easier to visualize. If you build a house out of brick, your bricks are held together by a layer of cement spread in between each of the bricks, holding them together. In this comparison, the leaky gap in the intestine would be comparable to the cement that holds the bricks/cells together that is breaking away (*Figures 5/6*).

This leaky space can become dangerous, since your food is located directly above this one cell barrier that is starting to deteriorate. So let's say you just ate gluten, which comes from wheat. If your tight junctions are intact, the gluten particles would not be able to cross this barrier. However, if you have a leaky gut, the barrier starts to break down and the food particles can enter your immune system and bloodstream. See figure 4 and look what has gotten into the blood stream? All the things that should have stayed in your small intestine and found their way into your blood stream!! CAN YOU SAY CHRONIC INFLAMMATION AND AUTOIMMUNE DISEASE DEVELOPING!!!!

If a piece of gluten enters into your bloodstream, your immune system recognizes that as a really large foreign particle that shouldn't be there. Any time this happens in your body, your immune system starts to attack it. As a result, you begin to experience food intolerance and systemic inflammation throughout the body. This could lead to pain in your body, fibromyalgia, and brain fog.

Let's look back at the leaky gut cell (*Figure 4*). These small brown bits with the tails floating around represent bacteria (the ones that look like sperm). You have both good bacteria and bad bacteria in your small intestine. When you have a leaky gut, these bacteria can enter your bloodstream from your small intestine, causing ADDITIONAL inflammation throughout your entire body.

Now let's take a second look at gluten. Once this gluten molecule is in your bloodstream your immune system recognizes it, just as we recognize people's faces. However when your body sees it, it cannot differentiate between the gluten and other tissues. Ultimately, your body can confuse this with other body tissue. THIS IS THE CAUSE OF AUTOIMMUNITY. A CONFUSED IMMUNE SYSTEM.

Obviously it is paramount that you heal and seal your digestive system, decreasing your inflammation in your body. This is the primary goal when you have leaky gut. At the end of the day, we want to reverse the inflammation and bring you back to optimal gut health. When you do this, you decrease your autoimmune response and your inflammation.

In the picture to the right (*Figure 7*), if you look at the cell that's labeled, "Leaky and inflamed," this indicates that your cells have become crusty. Imagine a healthy cell as a jelly donut. You can see that a fresh jelly donut would be really pliable. However, if you leave a jelly donut out for a few weeks, it's going to become crusty. When all your cells become crusty, your body becomes inflamed. To reverse this, you've got

to fix your cell membranes and decrease inflammation. Remember, you're only as healthy as your individual cells - your 100 trillion cells.

Let's zoom in even further to look at the individualized cells (*Figure 8*). See rectangular box. Saliva sits directly above these cells in your small intestine. This is the dark cloudy area above the finger like structures. This area I have labeled saliva layer. **THIS IS IMPORTANT YOU MUST HAVE THE SALIVA TO PROTECT YOUR SMALL INTESTINE FROM BEING BAKED DOWN!!!**

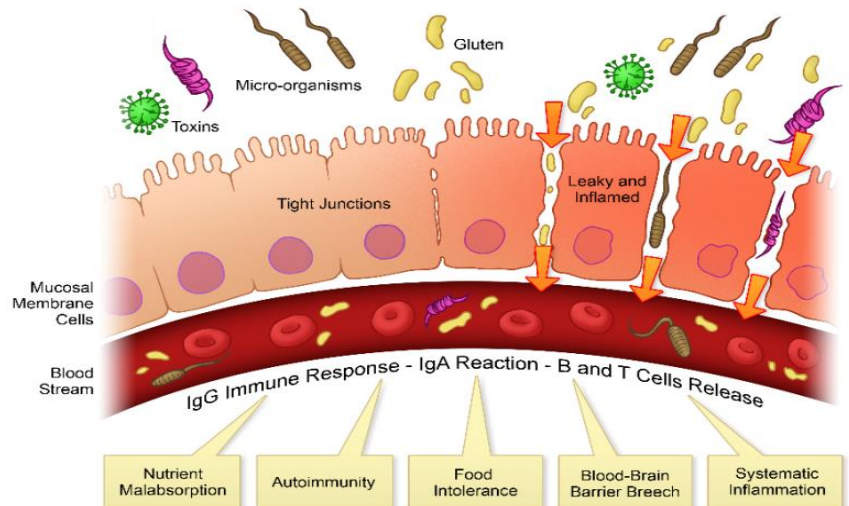


Figure 7



Figure 8



Let's compare this to something we are all familiar with. If there's no saliva in your mouth, your mouth becomes dry and doesn't function properly. So just like your mouth, having a healthy digestive system requires a layer of saliva in order to work properly and maintain a strong gut lining.

Let's see what happens to your saliva layer when it starts to degenerate and decay. The blood and other particles are moving, signifying that your immune system is just starting to become inflamed. Now as this inflammation starts to take place, you can see **the saliva layer begins to disappear. This is the beginning stage of a leaky gut and chronic inflammation.** As it progressively gets worse, your immune system becomes more inflamed and causes irritation and gut issues leading to autoimmune disease such as RA, Lupus, Hypothyroid, Crohn's disease, IBS, Sjogren's disease, Chronic Fatigue, Fibromyalgia, Diabetes and a host of other chronic diseases.

Look back at the picture (*Figure 9*) now and notice the little specks at the top. These are the bugs, bacteria and food sneaking into your bloodstream, which causes more inflammation. Your gut is becoming more damaged, the cells are becoming crustier, and the tight junctions are becoming looser, allowing food to enter the bloodstream. Overall, the immune system is getting upregulated and confused. When your immune system is confused it starts to attack different organs. When your immune system is confused it will always be more aggressive than less. Meaning if your immune system is unsure if something is friend or foe, because it's confused it will always attack and be more aggressive!!! It will assume its foe. This is AUTOIMMUNE DISEASE. Here is an analogy I like to use. If you have ever had one to many drinks before this will make sense. When this happens a person will see double or their vision will become blurred they become CONFUSED! They see two cars, two trees, two median lines, they see double of everything. When your immune system is confused it will see double. When your immune system sees double it will assume most things it encounters are FOE....

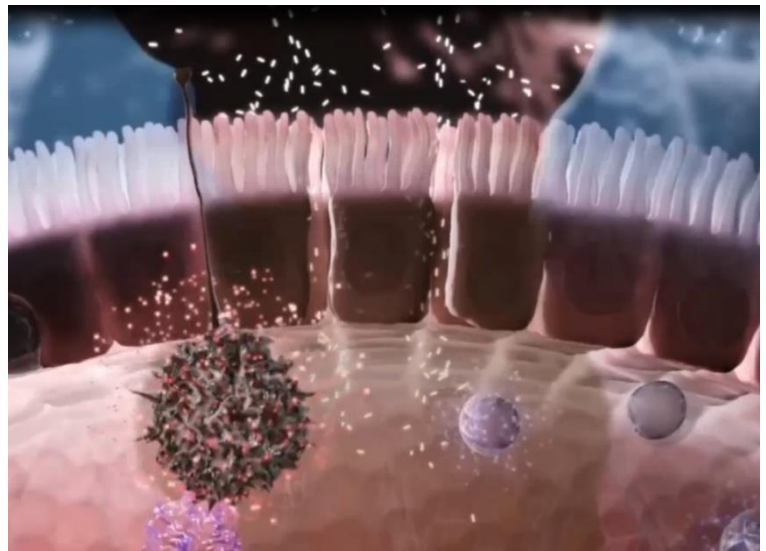


Figure 9

At the beginning of this eBook, I mentioned functional medicine. We use functional medicine to see if you have a leaky gut. We do this through an IgG test, or food sensitivity test (*Figure 10*). Most people are familiar with an IgE test and this should not be confused with an IgG test. An IgE test is an allergen test. This is where they pick your back. However, an IgG test is a leaky gut test measuring food sensitivity. This is a BLOOD test (IgG) unlike the test that picks your back (IgE). The IgG test tells us what causes inflammation in your gut and whole body.



Figure 10

On the next page look at the “Dairy” section of the horizontal bar graph (*Figure 11*).

Here we have an IgG blood test to check for food sensitivities. The longer the graph the more reaction there is in your body to the food item. If you have gluten in your bloodstream, your immune system (IgG) recognizes this gluten and, in response, produces a lot of IgGs. When this happens, this causes chronic inflammation.

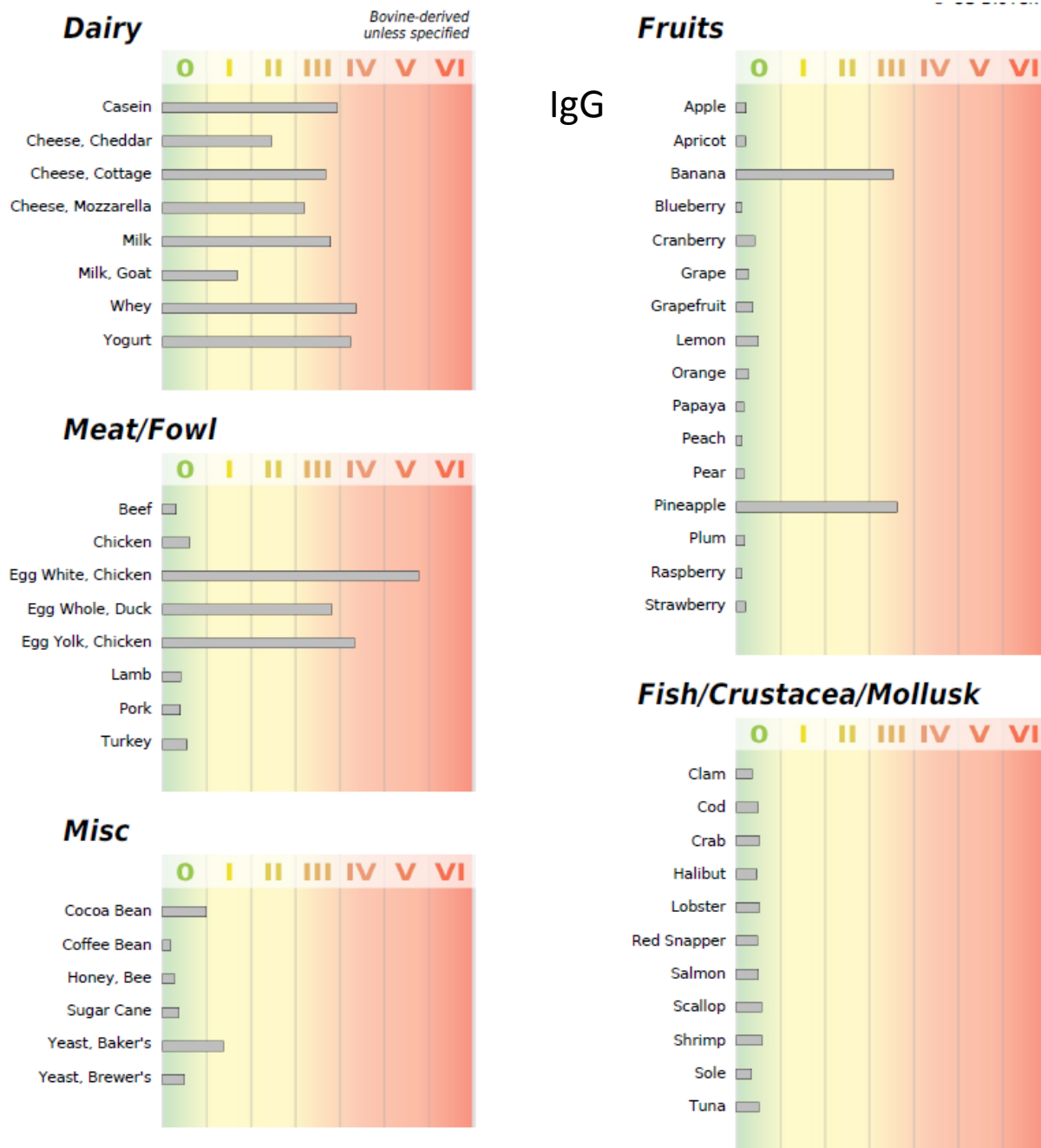


Figure 11



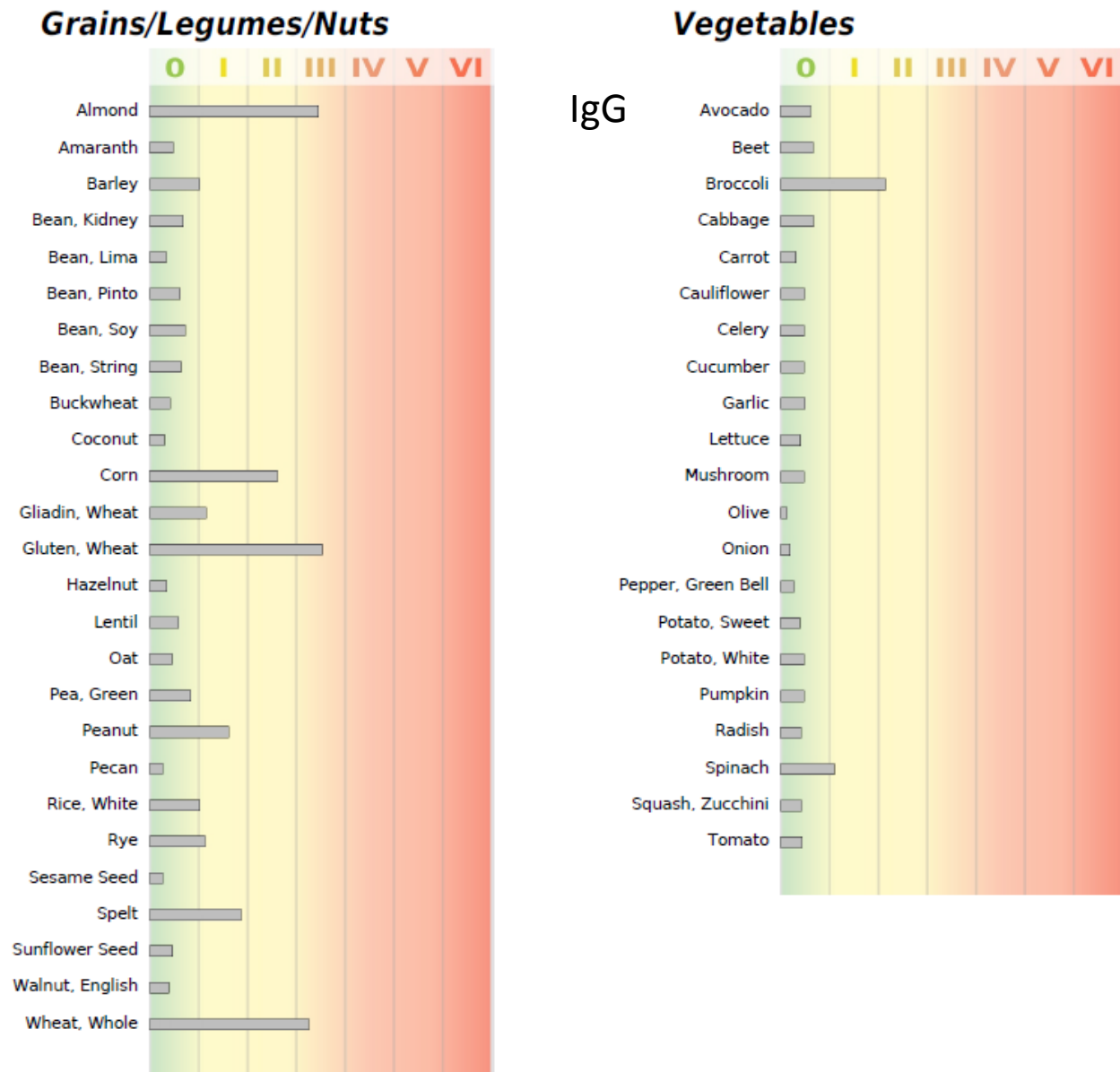


Figure 12

If you're IgG levels are high, your body is looking for the foreign substance, like gluten or any other food that has a long graph. This means that the only way your body can recognize gluten as foreign is if it broke through the cell barrier, and your immune system produced an IgG antibody to locate this.

When a person has a lot of bars that are long like the above person's test that indicated the immune system is confused and seeing double, triple or quadrupole depending on how many drinks the immune system has had. This is autoimmune disease.

Therefore, the food sensitivity test is really measuring how much IgG your body is producing. The more IgGs you have, the more inflammation you have in your body. So this test is critical, in locating which foods cause inflammation in the body making your immune system confused. Certain foods can cause inflammation and inflammation can lead to leaky gut.

Functional medicine is critical because it is based on testing. I test and not guess!!! This food sensitivity tests for 96 different types of foods, which can lead to chronic, increased inflammation. This, in turn, leads to leaky gut, causing your cells to become crusty.

**It's important to remember, you're only as healthy as your individual cells, so take notice of your gut health. Functional Medicine restores your cell health!!!!**

**BONUS MATERIAL!!!** How do you know if you have leaky gut? Testing is the best way to know, but in lieu of that test let's talk about what **NORMAL HEALTH BOWELS SHOULD BE.**

This is what a normal health digestive system should function like:

- ✓ 2-3 bowel movements per day.
- ✓ They should be consistent not changing from constipation to diarrhea.
- ✓ You should have no bloating.
- ✓ You should have no gas.
- ✓ You should have no heart burn.
- ✓ You should have **FULL** control of your bowel movements. Meaning you don't have emergencies and need to find a bathroom ASAP.
- ✓ You should not need to add a fiber supplement to have a bowel movement.
- ✓ You should not need coffee to make a bowel movement.
- ✓ You are not on **ANY** heart burn medications or antacids.
- ✓ You have no GERD.
- ✓ You should not have a daily ritual where you need to shake your right leg 5 times then do 10 jumping jacks and then drink a gallon of coffee to have a bowl movement.
- ✓ **INTOHER WORDS YOU SHOULD HAVE NO ATTENTION ON YOUR DIGESTIVE SYSTEM FROM YOUR MOUTH TO YOUR RECTUM.....**
- ✓ You should have no attention on you digestive system day in and day out all the time..... Unless you get food poisoning or a gut bug.
- ✓ If you have any of the listed problems above you have leaky gut!!!!!!

