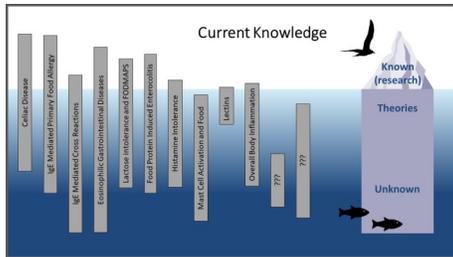


Food Sensitivity Overview

When learning about histamine intolerance and mast cell activation, it helps to step back and take a look at the big picture of food sensitivity. In the last few decades, knowledge about food sensitivity has grown tremendously. This knowledge has provided some answers but has opened up many more questions. Food sensitivities are more complicated and diverse than once thought.

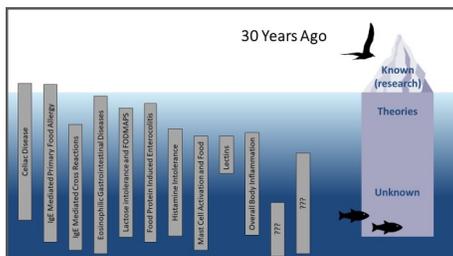
Knowledge is Like an Iceberg

Icebergs have a small part above the surface and a large part, hidden under the water. I'll explain how this relates to food sensitivity knowledge in the following video.

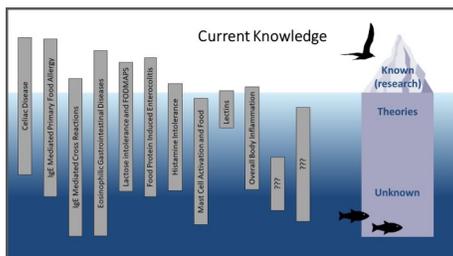


The part of the iceberg that is above the water and represents the food sensitivity information that is known and supported by research. Theories are just below the surface. Further down into the murky waters is the “Unknown information.” These boxes represent different food sensitivity conditions. Don’t worry about the details; focus on the big picture concepts. If we look at celiac disease, for example, the part of the box above the water represents what is known about this condition – which is quite a bit – especially compared to a condition like histamine intolerance. If you have celiac disease, you will get straightforward, consistent information about celiac disease and the gluten-free diet from your health professionals and you will find reliable websites. Unless you have a complication, this information will be enough to meet your needs and you have a roadmap to get back to good health. However, if you suffer from a condition where very little is known, such as histamine intolerance, the search for answers leads to contradicting theories. There isn’t a roadmap.

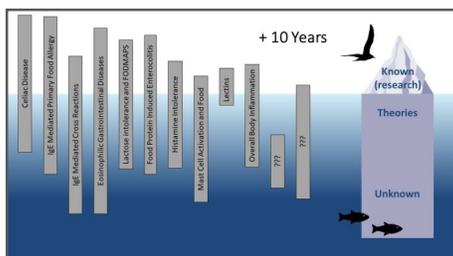
The question marks represent food sensitivity conditions that we don’t currently recognize or even have a name for .



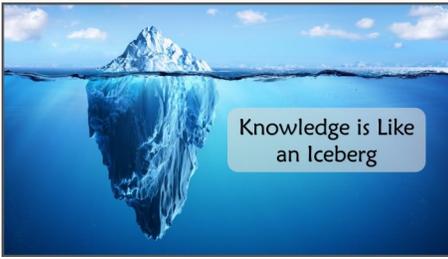
This slide represents our knowledge about 30 years ago. At that time, we only knew a little about a few conditions. Celiac disease was recognized but was thought to be a rare childhood disease that presented with diarrhea and malnutrition.



We have learned a lot in the last thirty years. At this time, celiac disease is thought to occur in about 1% of the population. Definitely not a rare disease! The true prevalence has increased, but the biggest difference is having accurate laboratory tests that can accurately screen for celiac disease. These tests enabled researchers to screen large groups of people which led to the discovery of how common it really is.



If we fast forward ten years, we will know a lot more – and we may have a very different understanding of some of these conditions. Also, food sensitivity conditions that are currently under the water will be recognized. In this slide, one of the question marks is just peaking above the surface.



In the next section of this article, I will talk about how letting go of the search for answers below the surface can improve your quality of life.

After that, I will briefly review our current understanding of the most common food sensitivity conditions. In other words, the information above the surface. As you read about each condition, keep in mind that there is a great deal below the surface that we don't understand yet.

Searching For Answers That Are Below the Surface

Clients with mysterious food sensitivity symptoms, are often searching for exact answers about the cause of their symptoms and exact treatment. But in most cases, we don't have those answers and clients are searching for answers that don't exist. The search for these illusive answers can cause more stress and suffering than the physical symptoms. Accepting that you may be suffering from a condition that is largely "under the surface" and that you may not find exact answers, can help you let go of a frustrating search. The good news is that you can find helpful treatments or lifestyle changes through systematic experimentation - even if you don't know the exact cause.

Frustrated clients often turn to food sensitivity testing to get answers, but for reasons discussed in the next article, I would not suggest this.

Food Allergy and Food Intolerance

It's important to remember that food sensitivity is a reaction to a compound within the food, not the food itself. The best example is the difference between milk allergy and milk intolerance (lactose intolerance). With an allergy, the immune system is reacting to a specific milk protein (but everything else in the milk is okay). With lactose intolerance, the milk sugar (lactose) is the problem.

I've listed the most common food sensitivity conditions below. Coming back to our iceberg analogy, this is the "above the water" information. If your food sensitivity symptoms do not fit into one of these categories, you may be suffering from a "below the surface" condition. Hopefully, we will know more in the future. Even if you don't know

the exact cause of your symptoms, you can find helpful treatments or lifestyle changes through systematic experimentation.

Food Allergy

Food allergies are an adverse reaction to a food that is mediated by the immune system. Our immune system protects us with inflammatory chemicals to kill harmful germs. If the immune system mistakes a food protein as harmful, inflammatory chemicals are released and cause inflammatory symptoms. I'll briefly describe the most common food allergies below.

Food allergy symptoms are usually consistent (e.g. you react with similar symptoms each time you eat the food).

IgE Food Allergy

What's happening in the body (pathology): The immune system produces IgE antibodies against a food protein, and the IgE attaches to mast cells in the digestive system. In the case of peanut allergy, the immune system produces peanut IgE. If the mast cells encounter peanut, they will activate (release inflammatory chemicals). Typical symptoms include:

- Typical IgE food allergy symptoms include:
- Digestive – sudden vomiting and/or diarrhea,
- Respiratory - wheezing, difficulty breathing (asthma),
- Skin - hives, swelling, itching, tingling in the mouth or face,
- Other -headache, impending doom.

Severe symptoms (anaphylaxis) can include a sudden drop in blood pressure (shock) and severe asthma.

Timing between food intake and symptoms: Symptoms usually occur within minutes to a few hours after eating the food.

Diagnosis: The connection between the food and

symptoms is usually obvious because the timing is quick, and symptoms are consistent (occur every time the food is eaten, even in small amounts). The diagnosis is based on the client's reported symptoms and blood or skin tests -confirming IgE to the specific food or food protein. If the diagnosis is uncertain, the physician may do a medically supervised food challenge (see [IgE Food Allergy](#)).

Treatment: The food allergen is entirely responsible for the symptoms. The patient will not have symptoms if they avoid the allergen.

IgE Food Allergy (Cross Reactions)

What's happening in the body: The immune system produces IgE against a protein in an environmental substance (e.g. plant pollen). Plant foods (such as fruit, vegetable, nut, etc.) have similar proteins and eating these plant foods may lead to symptoms. The most commonly recognized condition is oral allergy syndrome, which causes inflammation and itching in the mouth and face.

Timing between food intake and symptoms:

Symptoms usually occur within minutes to a few hours after eating the food.

Diagnosis: There are no laboratory tests to directly diagnose food allergy cross reactions.

Treatment: The food allergen is entirely responsible for the symptoms. The patient will not have symptoms if they avoid the allergen.

Celiac Disease

What's happening in the body: In genetically susceptible individuals, the immune system produces autoimmune antibodies in response to gluten ingestion. The autoimmune antibodies travel throughout the body and cause damage to a variety of organs. Gluten also damages the nutrient absorbing surface of the small intestine, so patients often suffer from malnutrition (e.g. anemia, osteoporosis, etc.).

Timing between food intake and symptoms:

Damage to the body occurs over time, so the connection between gluten and symptoms is not usu-

ally obvious. However, after following a gluten-free diet, patients often experience immediate discomfort if they eat gluten.

Diagnosis: The diagnosis starts with a blood test to detect autoimmune antibodies. If the blood test is positive, patients see a gastroenterologist for a small bowel biopsy. The patient must be eating gluten a few months before the test for it to be accurate. See [Test for Celiac Disease before Restricting Gluten](#).

Treatment: Gluten is a protein found in wheat, barley and rye. With a strict gluten-free diet, the autoimmune antibodies disappear, and the small intestine heals. Gluten is entirely responsible, and symptoms will disappear after a few months with a strict gluten-free diet (in most cases).

Food Intolerance

Food intolerance is an "umbrella term" for many different adverse food reactions that are not mediated by the immune system.

Food intolerance is often inconsistent (you react differently on different days).

Lactose Intolerance

What's happening in the body: Lactose (carbohydrate in milk) is broken down by the lactase enzyme in the digestive system. If the lactase enzyme is absent or not functioning well, lactose is not broken down and absorbed, so it travels on to the large intestine. Bacteria ferment the lactose, leading to gas, bloating and diarrhea.

Timing between food intake and symptoms: It takes time for the lactose to travel to the large intestine, so the symptoms (diarrhea, gas, bloating) start in about 4 – 6 hours after consuming lactose.

Diagnosis: Your doctor can order lab tests, but the results don't always correlate with symptoms. The best diagnosis is eliminating lactose and then reintroducing it.

Treatment: Many patients can eat small quanti-

ties of lactose without symptoms and may be able to increase their intake overtime (i.e. lactase enzyme may gradually increase with lactose consumption). The lactase enzyme can be purchased in drops or tablets at most pharmacies.

Poorly digested and absorbed carbohydrates (FODMAPs)

What's happening in the body: The pathology is very similar to the description for lactose. In fact, lactose is one of the FODMAP carbohydrates. Other FODMAP carbohydrates include fructose, oligosaccharides, etc.

Timing between food intake and symptoms: The symptoms (diarrhea, gas, bloating) usually start about 4 – 6 hours after eating poorly absorbed carbohydrates (but this can vary).

Diagnosis: Currently, there are no accepted diagnostic laboratory tests. The self-diagnosis is based on symptom improvement with a short-term low FODMAP diet (no more than 4-6 weeks). If symptoms improve, each FODMAP group is slowly reintroduced to pinpoint the problematic foods. A specialized dietitian can help you through this process.

Treatment: Avoiding the identified carbohydrates improve symptoms. However, many other factors affect digestion, so patients often continue to experience symptoms.

Dietary Histamine Intolerance

What's happening in the body: Dietary histamine is broken down in the digestive system. If this process is compromised, dietary histamine will not be broken down and enters the blood. Increased blood histamine can lead to puzzling allergy-like symptoms.

Timing between food intake and symptoms: Timing is variable. Large quantities of food histamine may lead to immediate symptoms. Smaller quantities may slowly accumulate over several hours.

Diagnosis: Currently, there is no accepted diagnostic laboratory tests. The self-diagnosis is based

on symptom improvement with restriction and return of symptoms with reintroduction.

Treatment: A [low histamine diet](#) and [diamine oxidase enzymes](#) will reduce symptoms if the patient truly has dietary histamine intolerance. However, many factors affect blood histamine levels, so diet changes rarely eliminate symptoms.

Food- Dependent, Non-Allergic Mast Cell Activation

What's happening in the body: Food is a symptom trigger for many mast cell disease patients, but the exact mechanism is unknown. Some mast cell patients find a low histamine diet helpful. "Histamine releasing foods" are theorized to cause direct activation of mast cells in the digestive system (see [Dietary Histamine Intolerance](#) for more details).

Timing between food intake and symptoms: Some clients experience immediate, anaphylactic-like symptoms, and others experience delayed symptoms.

Diagnosis: The physician specialist considers clinical symptoms, laboratory results and response to medication. Unfortunately, there isn't a yes/no test available, so a definitive diagnosis is not possible in some cases. Observation and experimentation can help determine specific food triggers, but they can be inconsistent, so it is difficult to pinpoint exact triggers.

Treatment: Mast cell disease is treated with medication to stabilize mast cells (so they are less likely to activate) and other medication to block the effect of inflammatory mediators. Trigger avoidance (including food triggers) is an important part of treatment.