## Cross Reactive Foods

## Other Foods Act Just Like Gluten

If you have Hashimoto's, the chances are that you have gluten sensitivity or gluten intolerance (whether or not it has been diagnosed). Research has shown a strong correlation between the two.

## Cross Reactivity: Not Gluten, But Acts Like It

One important thing that you need to understand is that there are other foods that can act like gluten in your body. And your immune system reacts to them in the same way that it reacts to gluten.

These foods are called cross reactors and even if you are diligent about avoiding gluten, you may be not making the progress you want because you are not aware of these other foods.

## Gluten Antibodies Recognize Proteins in Other Foods

Basically, when your body creates antibodies against gluten, those same antibodies notice antibodies in other foods. When you eat those foods, even though they don't contain gluten, your body reacts like they do.

In the same way that even a small amount of gluten can trigger an immune response (link to previous blog post), even a small amount of these foods can cause inflammation and an immune response.

## Proteins Are Made From Amino Acids

Proteins are made from long chains of amino acids, and it is the exact sequence of these amino acids that determines how the protein is formed and what it does. The way that the amino acid chains are folded, bent and buckled in different ways determines what the function of that protein is.

## Antibodies Are Made For Short Amino Acid Sequences

An antibody is a Y shaped protein produced by immune cells in your body. This antibody is like a lock and the sequence of amino acids is the key that unlocks it. The are different classes of antibodies, IgE, IgA and IgG. All 3
play a part in allergies and food sensitivities and reactions.
$\operatorname{IgE}$ is responsible for allergies, like someone's face blowing up after eating shellfish. $\operatorname{IgG}$ and $\operatorname{IgA}$ are responsible for food sensitivities and intolerances. They are found in high concentrations in the gut, and also in the lymph fluid, in saliva and in tissues themselves.

When antibodies are made, they recognize specific short sequences of amino acids in a protein. Some of these sequences are more likely to cause antibodies to be created. This is why certain foods tend to cause more allergies and sensitivities than others (gluten, for example).

Lots of Different Foods Have the Same Sequences as Gluten
Since antibodies are formed to these sequences, anything that has them is attacked by the immune system. So, depending on what antibody or antibodies your body forms against gluten, it may or may not cross-react with other foods.

But, if your body makes antibodies for sequences in other foods, then you are not only sensitive to gluten, you are sensitive to all those other foods.

## What Foods Cross React With Gluten?

There is a lab called Cyrex labs that tests for these cross reactors and they offer the following list of foods that may cause a gluten like response in your body:

- Rye
- Barley
- Spelt
- Polish Wheat
- Oats
- Buckwheat
- Sorghum
- Millet
- Amaranth
- Quinoa
- Corn
- Rice
- Potato
- Hemp
- Teff
- Soy
- Milk (Alpha-Casein, Beta-Casein, Casomorphin, Butyrophilin, Whey Protein)
- Chocolate
- Yeast
- Sesame
- Tapioca (a.k.a. cassava or yucca)
- Egg
- Coffee

You may notice that some of these are grains that are commonly thought to be gluten free. They may be, but they may also cross react which means they cause the same problems that gluten causes in your body.

And just like we discussed in our last post, only tiny amounts of these foods are needed to cause inflammation and an immune response.

## References:

Gluten Cross-Reactivity: How your body can still think you're eating gluten even after giving it up. | The Paleo Mom

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