

Gluten Sensitivity Tests

GIG Branch Leaders,
The Tests Are Here ~ Gluten Sensitivity Related Testing

Recently you received a press release from Dr. Tom O'Bryan and Cyrex Lab about their lab and new saliva testing.

The question --- Is this reputable?

I have had the honor of meeting Dr. O'Bryan many times. Each time he talks, he references credible, highly respected peer-reviewed medical publications and studies. Many with names we all recognize.

Dr. O'Bryan, in my opinion, is like Fasano (and Dr. Fine) - highly intelligent and forward-thinking scientists. Dr. O'Bryan is determined to have his work published in the same medical journals he sites when talking.

These are new tests.

They are not the tests naturopaths have used in the past. They were developed based on findings in other scientists work, including a recently published paper from Europe indicating that saliva testing may be a sensitive, low cost screening tool for gluten intolerances.

They are designed to be more specific and sensitive, and look at other types of 'gluten' markers. Whereas older saliva tests used are not sensitive or specific. They are designed to pick up and validate gluten intolerances currently not able to be tested for using currently accepted methods. For instance, they may be able to validate gluten intolerance in autism spectrum, explaining why some people with autism respond favorably to the GFD and some do not or why some people with chronic pain syndromes do well on a GFD and others do not. These tests could be more sensitive and catch gluten intolerances quicker than the current tests available.

Since these are new tests, they are not validated. Validation occurs by: 1) testing large and multiple sample groups; 2) publishing the results; 3) having other non-related scientists run the same testing with similar results. Reproducibility is the cornerstone of validation. (For those Dr. Fine fans, this is what he has failed to do, and it is the reason his work has not receive respect in the medical community outside of natural medicine).

That means that Cyrex will need to run hundreds of tests, publish their results, and then other labs will need to reproduce similar results using the same tests. It also means that the results will have to be compared to currently accepted methods to see if they are as effective as current methodology. This process gives testing methods validity. Validity may also come by further studying the people found to have positive results for gluten and placing them on a GFD and rechecking or observing improvement in health on or off the GFD.

So what does this mean to you?

1. It is exciting and new research
2. You will hear other well-respected researchers say that the studies are not validated (true), and so the scientific community will look at the research with caution. However, just with all new research - that is how all new methods are viewed until validated. The very large study from Europe received the same skeptical caution..."it is too new and needs further study" This is what happened with Fasano's work many years ago.

3. I am personally excited to see what the outcomes are of Dr. O'Bryan's works will be. I respect the way he approaches his passion for diagnosis of gluten intolerances. Only time will tell if the tests are valid for celiac disease, gluten intolerances, both vs. one, or not at all.
4. This is groundbreaking research.

As with all such new research, it is important that you work with your medical care team. Share this information with them and if it is positive consider a second opinion. The GFD is a lifelong commitment for people with gluten intolerances and should not be undertaken until you have done diagnostic testing to know your sensitivity is celiac disease or a gluten intolerance.

Cynthia Kupper, RD

The logo for theDr.com, featuring the word "the" in a light green font, "Dr." in a bold dark green font, and ".com" in a light green font. The logo is positioned on the left side of a horizontal banner that has a white background on the left and a green background on the right, separated by a curved green gradient.

**Cyrex Lab Opening
Four (4) Panels of Gluten Sensitivity Related Testing
NOW AVAILABLE
January, 2011**

Dear Patients, Friends and Colleagues,

You have heard me speak about and refer to the new testing coming 'Very Soon'. Yes, I know, some have heard me say this for quite awhile. Now is the time that we can say,

The lab is open, the tests are available. Read on for much more information.

Over the last few years, we have seen the correlation of Gluten Sensitivity as a common initiator of multiple pathologies. From Attention Deficit Hyperactivity Disorder to Hepatocellular Carcinoma, from Migraines to Recurrent Pancreatitis, from Cardiomyopathy to numerous autoimmune diseases, we have seen the association of sensitivity to this protein of wheat, rye and barley with the initial manifestation of multiple pathophysiologicals.

But there's been a Conundrum. What is it? **Problems associated with standard tests for Gluten Sensitivity.**

- The only blood tests (until now) for Celiac Disease have been extremely accurate and dependable if a person has Total Villous Atrophy (TVA). However, when biopsy test results with anything less than TVA, the accuracy of the test drops tremendously (to as low as being wrong 7 out of 10 times). Would you tolerate that accuracy rate for a cancer, heart disease, or even pregnancy test? Gluten has to have significantly destroyed the gut wall for current blood testing to be effective. For the majority of people that isn't the case...especially if the brain, heart, liver, or some other part of the body is the main target of attack.

A very recent study in the Journal of Pediatric Gastroenterology and Nutrition screened 5,000 children with a saliva test to see how it compared to the blood tests. Their Conclusion? It was as good as the best blood test to screen for Celiac Disease:

**"We demonstrated that it is possible to perform a powerful,
simple, well-accepted, and sensitive CD screening using saliva"**

[Read the Study Here - Saliva Screen with Children](#)

- Current blood tests to identify an immune reaction to wheat (Gluten Sensitivity) only screen for one peptide of wheat.

Yet people can react to a single peptide in wheat, or a combination of many proteins, peptides, and enzymes associated with wheat. Blood tests for twelve of the most antigenic (meaning most likely to provoke a reaction) pathogens associated with wheat are now available. **This is the first time anything like this has been available.**

- Some people also have cross-reactivity to gluten. For instance, eating dairy can trigger a gluten-like immune response because the body treats them as one in the same.

Cyrex Labs hones in on the specifics of Gluten Sensitivity

After many years of research and development Cyrex Labs in Arizona now offers thorough and comprehensive testing for Gluten Sensitivity. Cyrex was founded based on the life-work of Aristo Vojdani, Ph.D., M.Sc., C.L.S., a leading researcher in the fields of autoimmune disease and neuroimmunology who has published more than 100 scientific papers.

Array 1: Gluten Sensitivity Screen

The most research-validated 'screen' of Gluten Sensitivity (oral fluids)

Array 2: Intestinal Antigenic Permeability Screen

Finally a test that will identify antigenic Intestinal Permeability

Array 3: Wheat/Gluten Proteome Sensitivity & Autoimmunity

There are multiple peptides of gluten that are antigenic. Until now, we have only been able to test one - gliadin. Now we can test for 10 gluten peptides.

Array 4: Gluten-Associated Sensitivity and Cross-Reactive Foods

When a patient doesn't 'feel like a million dollars' on a GFD, are they ingesting foods that cross-react with gluten? Now the Array is available looking at 24 of these foods.

Each Array can be ordered at TheDr.com. Details of each Array are described below.

Cyrex Labs offers four arrays, with a fifth to be introduced in spring of 2011. Here they are:

Array 1: Gluten Sensitivity Screen

A simple, affordable way to screen for Celiac Disease and Gluten Sensitivity using saliva. As mentioned above, in the Journal of Pediatric Gastroenterology and Nutrition, it has just been shown to be as effective as the current blood tests (which is not full-proof), yet it's an affordable screen. We recommend it be considered for Patients who:

- Are suspected of having **mucosal abnormalities** (The mucosal lining is the tissue which lines various passages and cavities exposed to the air - such as the mouth, nose, GI tract, vagina. and the lungs. It is the first, the earliest response of the immune system to allergenic foods.)
- Are **suspected** of having Gluten Sensitivity or Celiac Disease
- Have **relatives** with Gluten Sensitivity or Celiac Disease
- Have a **family history** of autoimmune Disorders
- Those unable or who refuse to do a more comprehensive blood test
- Patients not responding as expected to **any** health concern

The saliva is the best way to detect a gluten sensitivity early, even before symptoms manifest. The gut has to be severely damaged in order for a blood test to be dependable. Because it uses a saliva sample, this test is easy to use with children.

This is a great test for people who have a family history of any autoimmune disease, even if they're asymptomatic (no symptoms). Since so many autoimmune diseases are triggered by gluten, this test shows the patient if a gluten-free diet may help prevent him or her from going down the same path as other family members that may be experiencing disease.

The Gluten Sensitivity Screen includes:

Total secretory IgA. Antibodies are used in testing to determine whether the immune system is reacting to something. Secretory IgA, a type of antibody, is a 'First Line of Defense'. Its job is to keep invading pathogens, such as viruses, bacteria and food proteins from attaching to the gut lining. When the layer of mucosa that protects the lining of the digestive tract breaks down or becomes dysfunctional, total secretory IgA may be too low or too high. This means you could have too few or too many antibodies to test properly, even though you are gluten sensitive. This marker screens for that.

Gliadin IgA + IgM antibodies. IgA antibodies are used to screen for gluten sensitivity. However if IgA antibodies are low due to weak immunity, another type of antibody called IgM will be high. Screening for both gives a more accurate view of immune status and thus test results.

Transglutaminase IgA + IgM combined antibodies. Transglutaminase is an enzyme in the digestive tract targeted in an autoimmune attack triggered by gluten. If this marker comes back positive you know gluten is attacking gut tissue through an autoimmune attack.

Array 2: Intestinal Antigenic Permeability Screen

A test that identifies how gluten is robbing you of gut health

Gluten causes inflammation in the gut, which eventually leads to intestinal permeability, or "leaky gut." Leaky gut allows undigested food particles, bacteria, and other pathogens to escape into the bloodstream where they can trigger allergies, sensitivities, and inflammation in other parts of the body. This is a main reason why people come back allergic to many foods. Several different mechanisms cause leaky gut:

- Breakdown of cells
- Loosening of the junctures of the gut lining
- Bacterial infection

This test pinpoints which of these is causing leaky gut so your practitioner knows what to specifically target for faster and more efficient gut repair.

Array 3: Wheat/Gluten Proteome Sensitivity and Autoimmunity

More than one wheat protein can cause Gluten Sensitivity - Cyrex Labs tests for twelve

Being Gluten Sensitive isn't as black-and-white as once thought. Actually gluten is a misnomer, "gliadin" is one portion of wheat that triggers an immune response in people (since "gluten" is commonly used I will stick with that term). It also has been discovered that wheat is made up of more than 100 different components that can cause a reaction, not just one (gliadin).

Until now testing for Gluten Sensitivity has only been against one of those components, alpha gliadin. Through extensive research Cyrex pinpointed the twelve components of wheat that most often provoke an immune response.

This new test greatly expands the parameters of gluten sensitivity testing, catching those who may have previously tested negative because they don't react to the alpha gliadin. A 'false negative' occurs when the (current) test says a person is 'ok' and they are not. I believe we will no longer see as many 'false negatives'.

Opioid testing

Array 3 also tests whether gluten has a drug-like opiate effect on an individual. Is gluten affecting your brain? Some people have enzymes in their digestive tract that break gluten down into opioids that act like heroin or morphine. Embarking on a gluten-free diet can cause terrible withdrawal symptoms in these people. One practitioner tells of a patient whose withdrawal symptoms were so severe she went to the emergency room.

Another problem with opioids is they disrupt brain function by attaching to receptor sites normally meant for neurotransmitters. Neurotransmitters are brain chemicals that help dictate our personality, moods, behavior, bodily function, and more.

This opioid effect on neurotransmitter receptors explains why gluten plays a role in so many cases of ADD/ADHD, autism, or behavioral problems in children; or brain fog, depression, anxiety, schizophrenia, anorexia and migraines in adults. When one mother put her autistic son on a gluten-free diet, he began eating the binding out of books as he was so desperate for his gluten-opioid "fix."

Array 3 screens for antibodies to the opioids produced from wheat called Gluteomorphins and Prodynorphins.

Array 4: Gluten-Associated Sensitivity and Cross-Reactive Foods

24 foods that cross-react with gluten or are newly introduced to a gluten-free diet

One of the most frustrating scenarios for both the practitioner and the patient is when a gluten-free diet fails to have any effect on a person who seems so clearly gluten sensitive. Newer research shows this may be due to cross-reactivity.

In cross-reactivity the body mistakes another food for gluten and reacts accordingly. Array 4 tests for 24 different foods that may be causing cross-reactivity.

Dairy - Cross-reactivity is common with dairy as its structure so closely resembles that of gluten. In fact 50 percent of people who are sensitive to gluten are also sensitive to dairy.

Coffee surprisingly, can cross-reactive with gluten - However Cyrex researchers were surprised to find coffee has the highest rate of cross-reaction with gluten. In other words, some people's (not everyone's) immune system mistakes coffee for gluten, triggering a reaction. This test informs people whether one needs to give up coffee (gasp!) to prevent gluten cross-reactivity.

Amaranth and quinoa - Array 4 also tests for foods that many people eat for the first time on a gluten-free diet, such as amaranth or quinoa. Never having been exposed to these foods could trigger the immune system to respond as if these grains were foreign intruders, especially in the case of a leaky and inflamed gut.

This panel has great clinical significance as it explains why people still react even after giving up gluten and even dairy.

Array 5

Which parts of the body are affected by a gluten-sensitivity?

People typically shrug off the possibility of a gluten sensitivity by saying, "I don't have any digestive problems." Little do they know that gluten produces digestive symptoms in only a minority of people (1 out of 8). For the majority gluten damages the brain, the heart, the skin, the respiratory tract, or the joints.

Although it won't be out until spring of 2011, Array 5 will test for which part of the body is the site of inflammation and degeneration caused by gluten sensitivity.

Ordering, Questions and Technical Information



Any and all of the current Arrays 1-4 may be ordered through your Doctor or Healthcare Practitioner or through TheDr.com

If you have further questions, please send your questions to Karen@TheDr.com. I would encourage you to forward this information to any and all that you know.

Additional technical information can be found at [Dr. Tom's Gluten World](http://Dr.Tom'sGlutenWorld).

Toward Healing the Planet, One Patient at a Time.
Tom O'Bryan, DC, CCN, DACBN