

## What We Test for and Why We Test it

### Gluten intolerance

Gluten intolerance is a more common disorder than previously reported in the scientific literature. Genetic predisposition is common in individuals of northern European descent (Celtic and Nordic) and in non-Caucasian and Mediterranean ethnicities. Historically, the diagnosis relied on invasive intestinal biopsy. A normal biopsy, however, does not exclude the disease. With the advent of biochemical markers (saliva SIgA) for gluten intolerance, several studies have proven the presence of various forms of gluten intolerance in 12%-18% of the US and EU populations.

### Cow's milk intolerance vs. lactose intolerance

Cow's milk intolerance is a specific genetically dictated intolerance to the major milk protein known as casein. It is defined as cow's milk-(and cow's milk-based dairy) induced intestinal damage that is reversed by a cow's milk-free diet and returns with exposure. Milk intolerance is caused by casein and other milk antigens/proteins in genetically predisposed individuals. Casein triggers a toxic reaction in the intestine that stimulates a gut-specific antibody called secretory IgA, which we test for in saliva. In severe cases, the problem is apparent at an early age (<3 years of age).

*Casein is the substance in milk that triggers a toxic reaction in the intestine of those who are intolerant of cow's milk.*

### Egg intolerance

Egg intolerance is defined as egg white-induced intestinal damage that is reversed by an egg-free diet and returns on challenge with eggs. It is an abnormal inflammatory response to ovalbumin in genetically predisposed individuals. Ovalbumin in chicken (and most other bird eggs) can trigger a toxic reaction in the intestine that produces secretory IgA antibodies, which we test for in saliva.

### Soy Intolerance

It is defined as soy protein-induced intestinal damage that is reversed by a soy-free diet and returns on challenge with soy. It is an abnormal response to soy proteins in genetically predisposed individuals. This is a problem that is on the rise in the US. Soy protein is a relatively new food/food additive in the US, and the long-term health effects for the US population are not yet clear. However, if your saliva test is positive, you may want to read food labels more carefully.



In severe cases, the problem is apparent at an early age (<3 years of age). In milder cases, patients may be completely asymptomatic and may not become aware of the problem until adulthood through objective testing using salivary secretory IgA.

### In conclusion...

Food intolerances are more common than publicly realized. They may be treated following appropriate testing and recognition which requires a single saliva sample.



### Major Accreditation

Diagnos-Techs is the only salivary-based lab that is accredited by the Joint Commission and is committed to providing its healthcare professional clients with lab testing that is highly accurate, based on pure science and designed to assist in restoring optimal health and promoting overall wellness for patients.

### Licensure and Proficiencies

Also accredited and licensed by the State of Washington (License No. MTS-0327), subject to the Clinical Laboratory Improvement Act of 2003 (CLIA-2003) certification. Our Federal CLIA Number is 50D0630141. External proficiency testing obtained from the College of American Pathologists, American Proficiency Institute and American Association of BioAnalysts.

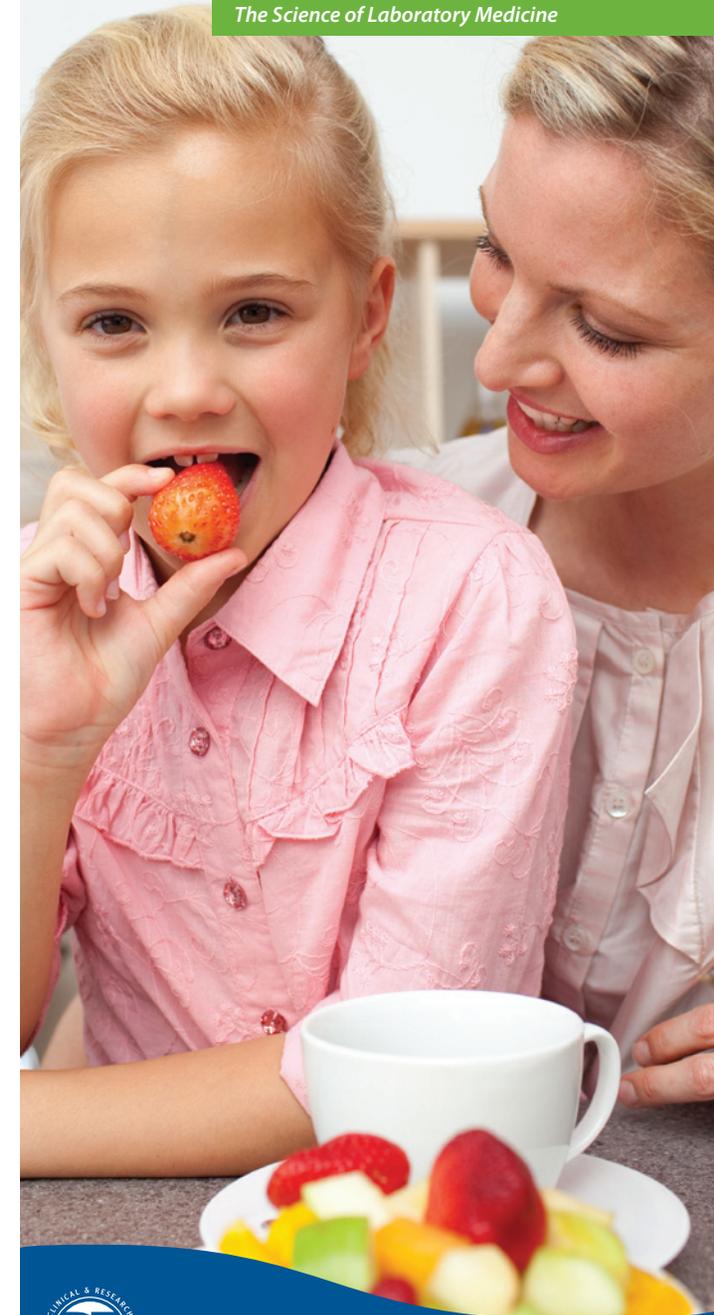
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19110 66<sup>th</sup> Avenue South, Building G  
Kent, Washington 98032

## Food Intolerance Panel™

The Science of Laboratory Medicine



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The relative frequency of food intolerance and food-related complaints in the general population is very high. Many food intolerances produce minimal symptoms, yet the long-term consequences are astonishing and include thyroid disease, neurologic disorders, increased cancer risk and accelerated aging. The major intolerances can now be tested from a sample of your saliva.



### Food Intolerance

Food Intolerance (or sensitivity) is an abnormal response in the intestine to certain foods in genetically susceptible/predisposed individuals. The result is irritation and inflammation every time the particular food is consumed. Food intolerance is different from food allergies in that intolerance is a lifelong condition. Food allergies are transient and usually fade when our intestinal tract is healthy. Food intolerances are not dependent on the health of the intestinal tract.

Food intolerance can occur in individuals from allergic and non-allergic family backgrounds. Food intolerance is caused by a food substance that triggers a toxic reaction on contact with our intestinal cells. Contact with susceptible cells produces inflammation that can result in intestinal damage. The inflammatory cells release chemicals that cause our immune system to release antibodies against the offending food. The main antibody produced by the intestinal lining is called secretory IgA (SIgA).



### Some Misconceptions

**Food intolerances and food allergies are the same condition.** Food allergies are immunological in origin and cause different forms of hypersensitivity reactions. Food allergies are distinct from food intolerances—which are genetically dictated entities.

**Food intolerances are diseases of childhood.** Intolerances are more likely to be symptomatic in children but are found in adults of all ages, because they are genetic in origin. Food intolerances are perpetrators of ongoing intestinal inflammation, which may eventually exhaust the body's defenses.

**Food intolerances are only present in symptomatic patients.** Food intolerances can be subjectively silent in many individuals. Nonetheless, they continue to drain our defenses and weaken our intestinal immune system. Food intolerance occurrence is underestimated in our symptom-driven health care system.

**Food intolerances are simply intestinal irritations.** Food intolerances can be more than a local intestinal problem, and may increase the risk of autoimmune diseases and cancer as well as accelerate aging.

### Gut Manifestations of Food Intolerance

- Diarrhea or soft to loose stools are the most common GI symptom
- Intestinal hypermotility—accelerated intestinal passage of food which results in vomiting, spasms of the gut and diarrhea
- Constipation
- Gastroesophageal reflux
- Malabsorption—inability to benefit from the food we eat
- Changes in intestinal wall integrity—allows foreign bodies and microbes access beyond the gut which normally does not occur

### Malnutrition and Nutritional Deficiencies

- Mouth ulcers
- Nausea/vomiting
- Gas
- IBS (Irritable bowel syndrome)

**Remember**—You may have no symptoms and still have a food intolerance.

### Food Intolerance Symptoms Beyond the Gut

**Skin:** Hives, dermatitis, rash, eczema

**Respiratory:** Runny nose, asthma, nasal congestion, sinusitis

**Heiner syndrome:** A chronic pulmonary disease caused by hypersensitivity to cow's milk

**Brain:** Headache, migraine, sleeplessness, irritability

**Anti-cancer defense:** Folic acid deficiency

**Changes in blood coagulation:** Vitamin K deficiency

**Anemia:** Weakened red blood cells and/or reduced counts, which may result in fatigue

### Manifestations of Grain Intolerance

#### The Stress Connection

The stress of gluten intolerance triggers cortisol elevation, which can reduce immunity, especially secretory antibody production.

#### Autoimmunity

Liver and bile problems, type I diabetes, and arthritis.

#### Cancer

Lymphoma (T-lymphocyte cancer).

#### The Thyroid Connection

Hashimoto's thyroiditis, resulting in hypothyroidism.

#### The Osteoporosis Connection

Low bone-mineral density: osteopenia and sometimes osteoporosis.

#### Neurologic Disorders

Postural imbalance and nerve tingling.

Except for osteoporosis, following a gluten-free diet for several years reduces the risk for all associated disorders.