

What You'll Learn:

- ✓ What gluten is and where it's found
- ✓ What gluten intolerance is and how it can silently destroy health
- ✓ The difference between celiac disease and non-celiac gluten intolerance
- ✓ Symptoms of gluten intolerance
- ✓ Testing for gluten intolerance
- ✓ How to manage clients with gluten intolerance



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The Truth About Gluten and How It Can Silently Destroy Your Health



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So...What Exactly is Gluten Anyway?


- ✓ A protein – or a group of proteins
- ✓ Found in common grains
 - Wheat
 - Barley
 - Rye
 - Triticale
 - Spelt
 - Kamut



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Where Are Gluten Grains Found?

<u>Wheat</u>	<u>Barley</u>	<u>Rye</u>
✓ Breads & Tortillas	✓ Malt	✓ Rye Bread
✓ Ezekiel Bread	✓ Food Coloring	✓ Pumpernickel Bread
✓ Essene Bread	✓ Soups	✓ Rye Beer
✓ Baked Goods	✓ Malt Vinegar	✓ Cereals
✓ Couscous	✓ Beer	
✓ Soups		
✓ Pasta	<u>Spelt, Kamut</u>	
✓ Cereals	✓ Bread	
✓ Sauces & Gravies	✓ Pasta	
✓ Salad Dressings	✓ Cereals	
	✓ Sprouted Raw Breads	



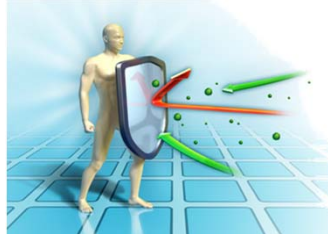
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What Is Gluten Intolerance?

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Immune System's Job

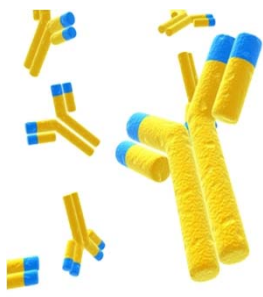
Protect from foreign invaders called antigens (the police department and army of the body)



- Bacteria
- Viruses
- Fungi
- Yeast
- Molds
- Pollen
- Food particles
- Dirt
- Parasites
- Environmental toxins

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Antibodies - Immunoglobulins




- ✓ **IgM and IgD:** First line.
- ✓ **IgG:** Most prevalent in blood.
- ✓ **IgA:** Mucosal surfaces, in serum, and in secretions. Secretory IgA - GI and respiratory tracts.
- ✓ **IgE:** Respiratory and GI mucous secretions – allergic asthma, hay fever, skin reactions, i.e., hives and parasitic infections.

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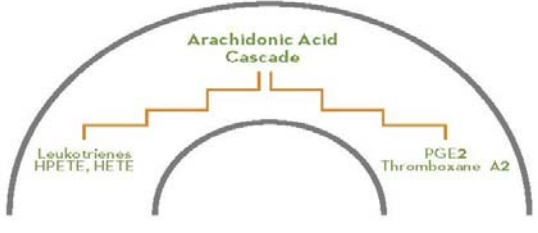
Food Allergies

- ✓ Immediate or delayed
- ✓ Immunoglobulins involved:
 - **IgA:** mucous membranes
 - **IgE:** immediate, histamine
 - **IgG:** delayed
 - **IgM:** early in allergic response
- ✓ Food sensitivities
- ✓ Frequently caused by leaky gut



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Mast Cell Membrane



Arachidonic Acid Cascade

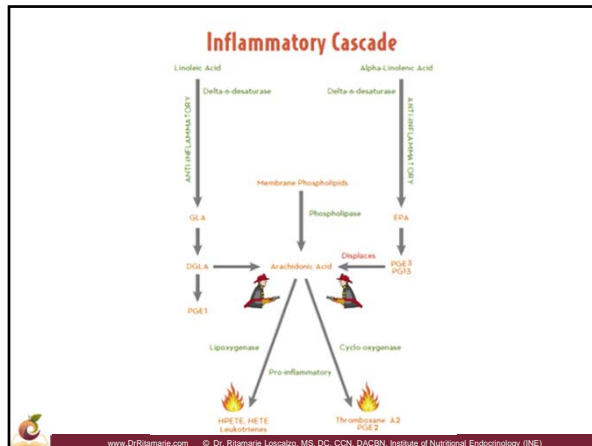
Leukotrienes
HPETE, HETE

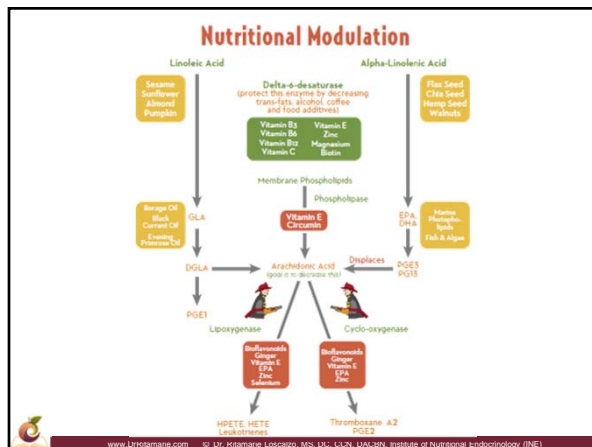
PGE2
Thromboxane A2

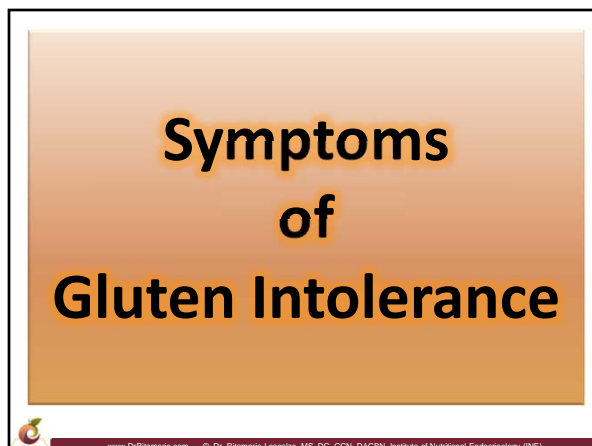
Producing Pro-inflammatory Agents

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INE: Gluten-Free as an Antidote to Low Vitality







Symptoms of Gluten Intolerance #1

- ✓Weight loss or weight gain
- ✓Nutritional deficiencies due to malabsorption, e.g., low iron levels
- ✓Gastro-intestinal problems (bloating, pain, gas, constipation, diarrhea)
- ✓Fat in the stools (due to poor digestion)



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Symptoms of Gluten Intolerance #2

- ✓Aching joints
- ✓Depression
- ✓Eczema or 'chicken skin'
- ✓Head aches
- ✓Exhaustion
- ✓Brain fog



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Symptoms of Gluten Intolerance #3

- ✓Infertility, irregular menstrual cycle, and miscarriage
- ✓Cramps, tingling, and numbness
- ✓Slow infant and child growth
- ✓Decline in dental health



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Symptoms of Gluten Intolerance #4

- ✓ Irritability and behavioral changes
- ✓ Early onset Parkinson's
- ✓ Alzheimer's
- ✓ Autism
- ✓ ADHD



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Symptoms of Gluten Intolerance #5

- ✓ Thyroid problems
- ✓ Insulin resistance
- ✓ Diabetes
- ✓ Autoimmune disease
- ✓ Crohn's disease
- ✓ Hormone imbalances



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Testing for Gluten Intolerance



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Elimination Diet

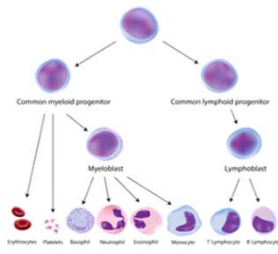
- ✓ Eliminate suspects for at least 4 days
 - Fast
 - Medical food
 - Rare foods diet
- ✓ Provocation protocol
 - 1 new food at a time
 - 3 day rule
 - Careful monitoring
- ✓ Food Allergy Spy Training (FAST): materials provide all the guidelines



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Blood Antibody Food Tests


- ✓ Measure antibody titers to a specific number of foods
- ✓ Usually IgG or IgG and IgE
- ✓ Some labs also offer IgM and IgA
- ✓ Mixed reliability
- ✓ Large number of positives related to leaky gut




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ALCAT Food Intolerance Test

- ✓ Blood Test
- ✓ Antigen Leukocyte Antibody Test
- ✓ ALCAT Test identifies cellular reactions to over 350 foods, chemicals, and herbs
- ✓ A food allergen is added to whole blood or to leukocyte suspensions
- ✓ **Lots of controversy and skepticism**




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Stool Antibody Gluten Tests


- ✓ Measures Anti-Gliadin Antibodies
- ✓ Cross-Reactive Stool Antigens
- ✓ IgA
- ✓ Inflammatory Markers
- ✓ Genetics


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Gluten Subfractions Reactivity


- ✓ Cyrex Labs Array 3
- ✓ Blood Test
- ✓ Array 3 assesses gluten reactivity in 12 different fractions, not just gliadin
- ✓ Highly sensitive





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Cyrex Labs Cross-Reactivity


ANTIBODY ARRAY 4 Gluten-Associated Sensitivity & Cross-Reactive Foods**	Normal	Equivocal*	Out of Range	Numeric Value	REFERENCE (ELISA Index)
Rye, Barley, Spelt, Polish Wheat	X			<0.4	0.4-1.4
Cow's Milk	X			0.14	0.1-1.3
Casein (Alpha & Beta)	X			<0.1	0.1-1.2
Casomorphin	X			<0.2	0.2-1.6
Milk Butyrophilin	X			0.11	0.1-1.3
Whey Protein	X			<0.1	0.1-1.3
Chocolate (Milk)	X			0.12	0.1-1.4
Oats	X			0.20	0.2-1.0
Yeast		X	X	2.33	0.2-1.2
Coffee		X	X	1.08	0.2-1.2
Sesame			X	1.47	0.1-1.3
Buckwheat	X			<0.4	0.4-1.5
Sorghum	X			0.64	0.3-1.2
Millet	X			0.45	0.3-1.5
Hemp	X			<0.3	0.3-1.5
Amaranth	X			0.44	0.2-1.3
Quinoa	X			0.77	0.5-1.5
Tapioce	X			0.46	0.1-1.1
Teff	X			0.50	0.2-1.1
Soy	X			<0.5	0.5-1.5
Egg	X			0.35	0.2-1.7
Corn	X			0.78	0.3-1.4
Rice	X			0.41	0.4-1.6
Potato	X			<0.6	0.5-1.4




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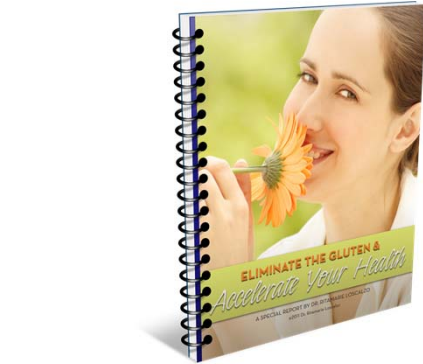
Why Do a Gluten Cross-Reactivity Test


- ✓30% of gluten sensitive people don't get results when just off gluten
- ✓Measures foods that are known to cross-react with gluten
- ✓Large percentage of people sensitive to gluten are sensitive to casein

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Managing Gluten Intolerance

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