Processed wheat flour containing gluten proteins
What is Gluten?
Gluten is the name of a group of several different water-soluble proteins found in wheat, rye, and barley. It’s what’s left when the starch is removed or washed away from wheat flour. The word “gluten” comes from the Latin word for glue, so it’s not surprising that gluten gives dough its elasticity, helps baked goods hold together, and gives them their chewy texture. The two main kinds of protein in gluten are called gliadin and glutenin.

Gluten and Digestion
Gluten proteins are very hard for many people to digest, and undigested gluten proteins can lead to abdominal discomfort. How widespread is the problem?

- Approximately 3.2 million people in the U.S. suffer from gluten intolerance, meaning they cannot handle gluten whatsoever.
- Another 19.1 million do not have as severe a reaction to gluten, but are still sensitive to the protein, which means ingesting it can cause gastrointestinal (GI) distress, such as occasional bloating, stomach discomfort, and bowel troubles.

There are multiple types of gliadins in gluten: alpha, beta, gamma, and omega-gliadin. In people with gluten intolerance, GI discomfort is triggered by alpha-gliadins and by tissue transglutaminase-2, an enzyme in the digestive tract that helps digest wheat. However, some people with gluten sensitivity also react to other kinds of gliadins and tissue transglutaminases. That’s why an elimination diet is often the only way to figure out if a patient has gluten sensitivity.

For those affected by gluten intolerance or gluten sensitivity, avoiding gluten is the first line of defense. However, avoiding gluten isn’t always easy, even for diligent patients.

What about DPP-IV?
While protease enzymes such as DPP-IV do partially break down proteins, as a stand alone ingredient it typically does not completely break down large proline-rich peptides, the main culprit in gluten intolerance and sensitivity.
Are You Being Exposed?
Hidden Sources of Gluten
Even when avoiding foods known to contain gluten, you may still be exposed to it without being aware. Gluten is commonly used as a filler in many foods you would expect to be gluten free.

**COMMON HIDDEN SOURCES OF GLUTEN:** Barley, Beer, Breads, Cakes, Candy, Cosmetics, Crackers, Croutons, French Fries, Gluten, Gravy, Imitation Meats, Pasta, Pies, Processed Meats, Rye, Salad Dressings, Seasoning Packs, Soups, Soy Sauce, Spelt, Sushi, Wheat.
**Hidden Sources of Gluten**

Gluten is often added to foods as a thickener, binder, flavor enhancer, and protein supplement. In addition to obvious sources such as bread, crackers, other baked goods, and pasta, gluten can also be found in food colorings, candy, pudding, marshmallows, flavored teas or coffee, grain alcohol (such as beer, ale, rye, scotch, and vodka), gravy, imitation meats, processed meats, salad dressing, seasoning packets, soups, soy sauce, and dietary supplements.

**Options Currently Available to Address Gluten Intolerance & Sensitivity**

The main protease (or protein-degrading) enzyme used to address gluten intolerance and sensitivity is the dipeptidyl peptidase (DPP-IV) enzyme. DPP-IV is an exopeptidase enzyme, meaning it cleaves the terminal amino acids on the outside of the gluten molecule. (It is also used to break down casein, for those with milk allergies or sensitivities.) However, while protease enzymes such as DPP-IV do partially break down proteins, they typically are unable to completely break down large proline-rich peptides – and these are considered to be the main culprit in gluten intolerance and sensitivity.

**Glutenza™ to the Rescue!**

When gluten-reactive patients have accidentally ingested gluten, breaking down the proteins quickly can help alleviate discomfort. Glutenza is unique multi-enzyme, probiotic, and prebiotic blend, a gluten pulverizing formula designed to effectively address inadvertent gluten ingestion.* Glutenza™ goes beyond formulas featuring the DPP-IV enzyme, offering quick and more complete degradation of gluten proteins.*

**Key Benefits**

- Supports complete pulverization of gluten protein*
- Supports normal digestive function*
- Promotes proper immune response to gluten protein*
- Promotes optimal health by supporting normal gut microflora*
- Supports the proliferation of beneficial bacteria in the gut and inhibits other bacteria*

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* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.
Glutenza™ can help avoid the discomfort associated with consumption of gluten protein.* Glutenza™ breaks down gluten proteins in the digestive system into small di, tri and free-form peptides before it reaches the small intestines.* When these pulverized proteins reach the small intestines in this immunologically unrecognizable state it does not activate an immune system response.*
GLUTEN PULVERIZING FORMULA*

**Supplement Facts**
Serving Size: 2 Capsules  
Servings per Container: 30

<table>
<thead>
<tr>
<th>Amount</th>
<th>%DV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary Multi-Enzyme Blend **</td>
<td>**</td>
</tr>
<tr>
<td>Endo-peptidase 150,000 HUT **</td>
<td>**</td>
</tr>
<tr>
<td>Protease 1,000 SAPU **</td>
<td>**</td>
</tr>
<tr>
<td>Exo-peptidase 250 DPPIV **</td>
<td>**</td>
</tr>
<tr>
<td>Probiotic Blend 10 billion live organisms **</td>
<td>**</td>
</tr>
<tr>
<td>Saccharomyces boulardii **</td>
<td>**</td>
</tr>
<tr>
<td>Bacillus subtilis **</td>
<td>**</td>
</tr>
<tr>
<td>Lactobacillus acidophilus **</td>
<td>**</td>
</tr>
<tr>
<td>Prebiotic (PreForPro™) 15 mg **</td>
<td>**</td>
</tr>
</tbody>
</table>

**Daily Value not established.

**Other Ingredients:** Rice bran, HPMC (vegetable capsule), medium chain triglycerides.

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The Three Pillars of Glutenza™
I. Enzyme Blend       II. Probiotics     III. PreForPro

I. Proprietary Multi-Enzyme Blend
Gluten is comprised of long-chain amino acids joined together through peptide bonds. Unlike the traditional DPP-IV enzyme, Glutenza™ effectively breaks down gluten into tiny, harmless particles before it reaches the small intestines.*
Glutenza contains powerful enzymes that work in two distinct stages to pulverize gluten.* In the first stage, endopeptidases break down internal peptide bonds (i.e. within the gluten molecule).* In the second stage, exopeptidases hydrolyze these smaller chains of amino acids at the external peptide bonds (i.e. at the end pieces).* The resulting di, tri, and free-form peptides created by Glutenza™ are immunologically unrecognizable, so they can be absorbed and used by the body without causing an immunological response.*

Clinically Demonstrated Effective
A double-blind, placebo-controlled human clinical trial conducted at Kennesaw State University has shown that after just one week of supplementation at every meal, the multi-enzyme blend in Glutenza™ helps alleviate:

• Stomach discomfort*
• Bloating*
• Stomach rumbling*

Glutenza™ compared to a typical gluten supplement formulation containing a majority of DPPIV

Gliadin Hydrolysis
Glutenza™ is superior to current gluten products on the market today that rely primarily on the DPP-IV enzyme. Glutenza™ helps break down large unhydrolyzed gluten peptides to amino acids that can be absorbed and used by the body.

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How Glutenza® Pulverizes Gluten*

Long gluten peptide structures can trigger an immune response

Glutenza enzymes pulverize the long chains

**Endo peptidase** Enzymes
Break down internal peptide bonds

**Exo peptidase** Enzymes
Hydrolyze amino acids at the external peptide bonds

**Proteolytic** Enzymes
Further break down peptide bonds

Result: Friendly peptides that don’t trigger an immune response
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Probiotics Blend
Gut health depends on maintaining a balance of microorganisms in the gastro-intestinal tract. Unfortunately, numerous facets of modern-day life can throw off this precious balance. Probiotics can help restore it.* These live microorganisms are similar to those that occur naturally in the gut, and when administered, confer important health benefits.* The Probiotics Blend in Glutenza™ features 10 billion live organisms from three strains of beneficial bacteria, all of which have an excellent track record of supporting intestinal health.*

- **Saccharomyces boulardii**: Shown in double-blind, placebo-controlled human research to support normal bowel consistency in travelers and promote abdominal comfort in people suffering from occasional indigestion.*

- **Bacillus subtilis**: Found to help alleviate occasional constipation in a controlled human trial.*

- **Lactobacillus acidophilus**: Demonstrated to promote abdominal comfort, while alleviating occasional bloating, gas, and constipation in placebo-controlled human research.*

PreForPro™
A prebiotic is a non-digestible food ingredient that stimulates the growth of beneficial bacterial. Prebiotics are the perfect complement to probiotics because they help ensure their survival once they reach the gut. Traditional fiber or starch-based prebiotics have some drawbacks, however. They can cause flatulence, require large doses to be effective, take days to work, are sensitive to their specific environment, and are only active in the large intestine.

The result of extensive research, PreForPro™ is a highly specialized prebiotic that is not fiber or starch-based and solves the problems plaguing traditional prebiotics. PreForPro™ does not cause flatulence, is effective in small doses, works within hours, is not affected by varying gut environments, is active in the small and large intestine, and works with a wide variety of beneficial bacteria species, such as B. breve, B. lactis, L. paracasei, and B. longum.

Plus, it’s effective. PreForPro™ has been shown through both in vitro and in vivo testing to preferentially promote the growth of beneficial bacteria – such as Lactobacillus, Bifidobacterium, and Bacillus subtilis – which help break down gluten and support gut health.*

The Three Pillars of Glutenza™
I. Enzyme Blend
II. Probiotics Blend
III. PreForPro™
References


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The Complete Gluten Program

Gluten Sensitivity Program™ is a comprehensive kit composed of nine formulas chosen for their ability to support the repair of damaged tissue, to restore immune system and eicosanoid balance and revitalize overall health in gluten sensitive individuals.* Also included is an informative program guide offering guidelines for living a healthy, gluten-free lifestyle.*

The formulas in NuMedica’s Gluten Sensitivity Program™ work synergistically with a gluten-free diet to minimize the negative effects of gluten exposure in individuals with gluten sensitivity issues.*
**ZinCosa GI™**

**NEW**

**ZinCosa GI™** is an advanced gastric cytoprotective formula designed to support and maintain the integrity of the protective mucosal lining.* It offers enhanced protection from unwanted absorption of sensitizing proteins such as gluten and casein.* Zinc ions and l-carnosine are bound in a 1:1 ratio to create a chelated compound shown to be three times more effective than the individual ingredients alone.*

This superior chelation technology aids in replacing the nickel ion center of urease with zinc, thereby establishing a lower pH environment inhospitable to the growth of H. pylori.* L-carnosine plays a protective role to the gastric mucosa by transporting zinc to damaged areas.*