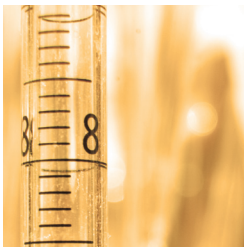

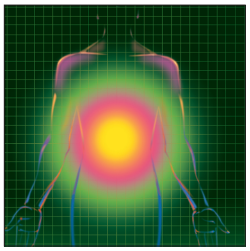

# GLUTEN RELIEF™

## Improved nutrient absorption and digestion

The digestive system is a complex system that plays a key role in good health and optimum resistance against disease. Digestive enzymes are released by the digestive tract when we eat. Enzymes present in food also aid in digestion. Highly processed foods lack enzymes and overload the capacity of the digestive system, leading to enzyme deficiency. A deficiency of enzymes can also occur during times of illness and stress, and as a result of aging and many diseases. Symptoms of enzyme deficiency include abdominal pain, constipation or diarrhea, bloating, and gas. Reduced digestive enzyme function contributes to nutrients not being absorbed, fatigue, and reduced stamina, and can lead to food sensitivities or allergies, and autoimmune disease.

The digestive system may be especially inadequate when it comes to specific foods found profusely in our highly-processed modern diet, including gluten-containing grains, casein-containing foods, dairy products containing lactose, and the complex carbohydrates found in beans and other vegetables. Gluten is the sticky protein found in wheat and other grains, including oats, rye, and barley. Casein is a protein found in high amounts in cows' milk and cheese. Lactose is also known as milk sugar and is the main sugar found in milk and dairy products. Natural Factors Gluten Relief is a special dipeptidyl peptidase IV (DPP-IV) enzyme blend for comprehensive digestive support for gluten, casein, and other protein peptides that commonly cause digestive irritation.

### HARD-TO-DIGEST PROTEIN PEPTIDES

Gluten-containing cereal grains and casein-containing dairy products are difficult to digest and may be incompletely broken down. Casein and gluten have similar chemical structures that are made up of protein peptides, and individuals sensitive to these components may develop mild to severe digestive complaints, fatigue, and loss of energy.

Gluten causes changes in the normal small bowel mucosa and may also have widespread effect in the body, including possible association with bacterial overgrowth and infections, milk intolerance, and giardiasis. Celiac disease is a life-long disease characterized by intestinal inflammation when gluten is consumed in the diet. Consumption of gluten and casein may also play a role in the development of autism (Reichelt, Knivsberg).

Casein and gluten consumption are commonly associated with irritation and inflammation of the lining of the small intestine, and digestive complaints, such as discomfort, gas, bloating, and pain. There are certain conditions where a gluten- and casein-free diet is critical for treatment and recovery. For example a gluten-free diet is an effective treatment for gluten-sensitive individuals and celiac patients. However, both deliberate and accidental gluten consumption is common, leading to renewed symptoms and disease relapse. Ingestion of even small amounts of gluten can result in symptoms, such as immediate bloating, diarrhea, and long-term weight gain (Roxas). Many individuals find adherence to a strict gluten-free or casein-free diet difficult, because cereal and/or dairy products are present in most prepared foods. Casein and gluten may be hidden in foods such as ice cream, salad dressings, and processed foods. Casein may be listed as milk protein and not readily identifiable on food labels.

Difficulty in digesting lactose is common, and also known as lactose intolerance. It occurs when the body has too little of the lactase enzyme in the small intestine. Lactose intolerance can happen at any age, but tends to affect most people as they get older. The production of lactase enzyme is highest in full-term infants and begins to decline at about age three. Lactase production may be temporarily impaired when damage to the lining of the intestinal tract occurs, such as from a gastrointestinal illness. Lactase deficiency is often not a total deficiency and many individuals can tolerate some dairy products, but increasing the amount of dairy in the diet often means trouble for individuals sensitive to lactose. The undigested lactose is used as food by the normal bacteria found in the intestine, and this often causes gas, diarrhea, abdominal pain, and cramps (Roxas).

### A UNIQUE FORMULA

Gluten Relief is specially formulated with a balanced blend of the enzymes needed for complete digestion of difficult-to-digest foods, especially cereal grains and milk products, which contain carbohydrate, protein, gluten, and casein. Improved digestion of these foods can help ease digestive complaints and lighten the load on the digestive system, improving energy levels and vitality, reducing disease, and improving health and wellness. Eating a healthy diet high in raw foods, fruits, and vegetables, avoiding overly processed foods, eating regular meals, chewing food thoroughly, and keeping stress levels low will further help the digestive system to function optimally.

The special enzyme blend found in Gluten Relief contains the essential proteases I, II, III, IV and V, in addition to amylase I and II, glucoamylase, cellulase, lactase, and alpha-galactosidase, and is suitable for vegetarians.



Where Great Health Begins

*Proteases* are digestive enzymes found in the stomach, pancreas, and intestine. These enzymes are a family of enzymes which break down protein and support digestive health. Protease enzymes are thought to help reduce pain and inflammation, including muscle pain, and alleviate symptoms of allergies. Proteases hydrolyze difficult-to-digest proline-containing peptides from cereal grains, such as gluten and dairy.

*Amylases* are salivary and pancreatic enzymes that break down carbohydrates into simpler sugars.

*Glucoamylase* is an enzyme that breaks down carbohydrates into maltose and glucose.

*Cellulase* enzymes convert cellulose fibre to a simpler sugar. Cellulose fibre is poorly digested by humans and has little nutritional value, although very important for the structure of cell membranes. Many processed and prepared foods contain cellulose fibre to increase the thickness of foods and the overall fibre content. Taking an enzyme product containing cellulase may be necessary for good health.

*Lactase* is an enzyme produced in the small intestine that is needed to convert milk sugar (lactose) into simpler sugars that the body can use. Many people decrease the amount of lactose-containing products they eat or drink to avoid gastrointestinal symptoms related to lactase deficiency.

*Alpha-galactosidase* is an enzyme that breaks down certain complex carbohydrates and helps the body digest the sugar in legumes and many vegetables. This enzyme helps reduce the gas and bloating commonly seen in individuals who consume beans and other foods containing complex carbohydrates.

## HEALTH BENEFITS OF GLUTEN RELIEF

- Supports the digestion of difficult-to-digest foods containing gluten, casein, lactose, and certain complex carbohydrates
- Reduces the symptoms of digestive irritation, such as bloating, cramps, and gas
- Normalizes the inflammatory response to help reduce allergic reactions and symptoms
- Reduces skin irritations, such as acne or rosacea

Cereal grains and dairy products contain gluten, casein, and proline-containing peptides which hamper digestion. Consumption of these foods can lead to digestive complaints, such as gas, bloating, cramping, and overall pain. The synergistic enzymes found in Gluten Relief help break down carbohydrates and dairy and are stable throughout the pH range of the digestive tract. More complete digestion allows nutrients in your food to be absorbed and utilized by the body.

Gluten Relief is very convenient for people who find it difficult to avoid or eliminate gluten and casein from their diets. Proteases are capable of detoxifying moderate quantities of gluten and preventing symptoms from occurring in gluten-sensitive individuals and those with celiac disease (Rizello, *et al*). Individuals with gluten sensitivity may wish to take Gluten Relief proactively if they plan on consuming foods containing gluten. Casein, one of the primary proteins in cow's milk, and lactose are prominent in dairy products. Because gluten, casein, and lactose are frequently "hidden" in many foods, including coffee whitener, cereals, processed meats, and nutrition bars, common digestive complaints may be due to the repeated consumption of gluten, casein or lactose.

## NORMALIZING THE INFLAMMATORY RESPONSE

Long-term consumption of foods that hamper digestive function can lead to food allergies and sensitivities. Because digestion and immunity are inextricably-linked systems, a dysfunction of one can wreak havoc with the other. Food allergies and sensitivities are often caused by or exacerbated when the inflammatory response of the immune system becomes hypersensitive (Roxas). Since improved digestion helps normalize the inflammatory response, Gluten Relief can be used preventatively to lessen digestive complaints due to allergies, sensitivities, and incomplete digestion. Individuals who experience skin eruptions, such as acne, rosacea, and other inflammatory symptoms may also benefit from Gluten Relief for the same reason. Joint aches and pains, headaches, and other inflammatory symptoms can be reduced through improved digestive function as well.

## DOSAGE

Each Gluten Relief vegetarian capsule contains 375 mg proprietary enzyme blend. Recommended dose is 1-2 capsules daily preferably with meals, or as directed by a health care practitioner. Dosage may be increased to relieve digestive complaints or with consumption of gluten-containing or casein-containing foods. Capsules may be opened and sprinkled onto foods for children or individuals who have difficulty swallowing capsules.

## SAFETY

Gluten Relief is considered safe and suitable for long-term use for individuals of all ages.

*Pregnancy and lactation:* Gluten Relief is considered safe during pregnancy and lactation. As with any supplement, pregnant or lactating women should consult a health care practitioner before use.

*Children:* Suitable for children at half the adult dose.

*Drug interactions:* None known.

*Contraindications:* None known.

Gluten Relief can support the complete digestion of difficult-to-digest foods, such as gluten and casein. Improved digestion of these foods can help ease digestive complaints and lighten the load on the digestive system, improving energy levels and vitality, reducing disease, and improving health and wellness.

## KEY REFERENCES

Reichelt K.L., Knivsberg A.M., "The possibility and probability of a gut-to-brain connection in autism", *Ann Clin Psychiatry* 2009 Oct-Dec; 21(4): 205-211

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