

Shaklee®

product brief

Digestive Health



EZ-Gest®

Multi-enzyme Digestive Aid*

Are Your Meals an Obstacle Course?

At breakfast, you worry about how much cream to add to your coffee, and decide against cereal (it's just not the same without milk). At the lunch buffet, you realize you'll have to pass over the chili and the majority of the salad bar offerings, including broccoli florets, peas, red cabbage, parmesan and cottage cheese, and all but the non-fat dressings. So you load up on pasta and rolls...and your stomach is still unhappy all afternoon. At dinner, you watch longingly while your family enjoys pizza plus ice cream for dessert. Not only is it frustrating to have such limited choices when you eat, but you sometimes worry about your nutrition as well.

If catering to an increasingly finicky gastrointestinal system interferes with your diet and your life, you're not alone. Surveys suggest that digestive upsets that can't be attributed to a specific condition or disease are quite common.¹ In one survey, almost 70% of those responding reported having at least one of 20 different symptoms — including discomfort, indigestion, belching, and bloating — in the last three months.² The culprits may include certain “problem” foods such as

beans or dairy, eating meals high in fat, habitually eating too fast or too much, and even eating while under stress.

You may have tried products to help you eat beans or dairy...but what do you do when other foods trigger problems? How can you consume a healthy and satisfying diet without constantly worrying about gastrointestinal distress?

What Is EZ-Gest?

EZ-Gest offers as-needed relief for the unwanted results of incomplete digestion of foods. Unlike popular single-function digestive aids, EZ-Gest offers plant-based, comprehensive digestive support*:

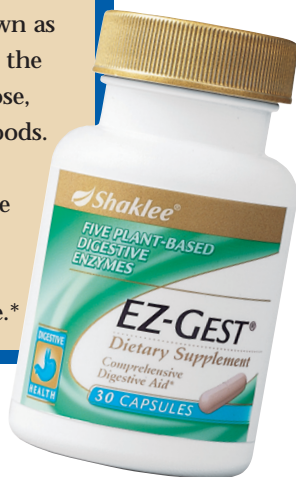
- Alleviates symptoms such as gas, bloating, and feelings of fullness*
- Includes targeted enzymes to help digest common “problem” foods such as dairy and gas-producing vegetables, including beans and broccoli*
- Supports complete digestion of the fat, protein, and carbohydrates in all foods, with a concentrated, multi-enzyme formula that addresses all food groups*

How Does the Body Digest Foods?

The term digestion actually covers a collection of bodily processes that combine to “unlock” the value of food — both physically and chemically — to yield nutrients that can be absorbed and utilized.

A comprehensive enzyme product designed to support the normal digestion of protein, fat, and complex carbohydrates, the major components of a healthy meal. EZ-Gest contains beta-D-galactosidase, better known as the lactase enzyme, which helps the body break down the sugar lactose, found in milk and other dairy foods. EZ-Gest also contains alpha-D-galactosidase, a special enzyme that breaks down the complex sugars found in gas-producing foods such as beans and cabbage.*

EZ-Gest®
30 capsules
#20633



Supplement Facts

Serving Size: 1 Capsule
Servings Per Container: 30

Amount Per Serving	% Daily Value
Lactase Enzyme 3000 ALU	†
Alpha-Galactosidase Enzyme 380 GALU	†
Protease Enzyme 12500 HUT (pH4.5, pH6, peptidase)	†
Amylase Enzyme 2000 DU	†
Lipase Enzyme 150 LU	†

† Daily values not established.

Ingredients: Microcrystalline cellulose, enzymes (derived from *Aspergillus oryzae* and *Aspergillus niger*) and gelatin capsule (gelatin, water).

*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.

Digestion actually begins with chewing. Teeth slice, crush, and grind while secreted saliva softens and lubricates food to facilitate swallowing. Saliva also contains an enzyme that begins breaking down carbohydrates.

Protein and fat digestion begins in the stomach, through the churning action of stomach muscles, plus various forms of chemical action. Gastric acid and enzymes like pepsin break proteins down into fragments called polypeptides. Gastric lipase begins breaking fats into fatty acids and glycerides.

Although the length of time that food remains in the stomach depends on the amount and composition of a meal, after an average of 3–5 hours, a typical mixed meal — now partially digested and called chyme — leaves the stomach and enters the small intestine.

In the small intestine, secretions from the pancreas help neutralize acidity and provide enzymes to continue breaking down food:

- Amylase enzyme splits complex carbohydrates into simpler sugars.
- Protease enzymes further split polypeptides (protein).
- Lipase enzyme completes the breakdown of fats into fatty acids and other components.

Also in the small intestine, bile (which is made in the liver and secreted through the gallbladder) helps neutralize acid and emulsify fats, making them water soluble to facilitate absorption.

Additional enzymes complete the breakdown of foods into simple sugars, amino acids, and vitamins and minerals that are absorbed into the bloodstream at various sites along the small intestine. Finally, fiber and non-digestible food components travel to the large intestine and colon for microfloral processing and eventual excretion.

Why Is Dairy a Problem?

Lactose is a non-absorbable sugar found in milk and dairy products. Lactase (beta-D-galactosidase) is an enzyme found in the small intestine that breaks down lactose sugar into absorbable glucose and galactose.

If the lactase enzyme is lacking or insufficient, undigested lactose pulls water into the intestines and is acted on by bacteria, producing discomfort and gas. These symptoms can range from mild to severe, depending on the degree of lactose intolerance and the amounts of lactose consumed.

It is estimated that up to 50 million Americans experience some difficulty in digesting milk and milk-based products.³ At birth, most infants have enough lactase activity to digest mother's milk or milk formula. However, in some people, lactase activity is genetically programmed to decline as they become teens and adults. Inherited lactase deficiency is found in many ethnic groups (up to 10% in American Caucasians, and from 60–90% in Americans of African, Jewish, Mexican, Asian, or American Indian descent).

A recent study has shown that both bone-mineral density and calcium intake are significantly lower in women with lactose intolerance and poor lactose absorption.⁴ Not only do those who have symptoms tend to avoid calcium-rich dairy foods, but the undigested lactose appears to actually interfere with calcium absorption.

Why Do Foods Like Beans and Broccoli Cause Gas?

Eating for wellness means choosing a low-fat, well-balanced diet largely based on grains, beans, vegetables, and fruits — which also means plenty of fiber. This diet supports health in a variety of ways, but can also cause problems for those who are sensitive to the “gas-producing” compounds many of these foods contain.

These compounds — or oligosaccharides, which are chains of three or more linked sugar molecules — are found in whole grains, beans, peas, cabbage, broccoli, and a number of other vegetables and fruits.

The human body doesn't produce the enzymes needed to break apart some of these complex sugars (with names like raffinose and stachyose). As a result, they remain undigested until they reach the large intestine. When bacteria metabolize the sugars, they produce gases, including hydrogen, carbon dioxide, and methane. These gases can cause abdominal cramps, bloating, and flatulence in some people.

What Other Factors Create Digestive Challenges?

- *Getting older.* Some research suggests that older individuals may not be able to handle the digestion of high fat foods as well as when they were younger.⁵ These age-related changes in gastrointestinal function are complex, but may involve a mild decline in production of lipase — the fat-digesting enzyme — by the pancreas.

Intestinal lactase activity also appears to decrease with advancing age.⁶ This can lead to increased symptoms of lactose malabsorption and avoidance of

calcium-rich dairy foods, particularly in those who already have some degree of lactose intolerance.

- **Over-eating.** Heavy, fat-laden meals can take longer to digest. The digestion often associated with greasy foods may also be partly explained by the production of gases when fatty acids and stomach acid are neutralized in the small intestine. If trapped, this gas may contribute to bloating and discomfort.
- **Typical “Western” dietary patterns.** It is estimated that with a typical American diet, a certain amount of protein escapes digestion. In the colon, undigested protein is acted upon by bacteria, producing metabolic byproducts that can create an unfavorable environment for the cells that line the colon.
- **Poor mealtime habits.** Digestion can suffer when people continually eat on the go and in a rush. When food is not chewed well, salivation may be inadequate and food grinding may be incomplete. As a result, carbohydrate digestion may not get the jump-start it needs before reaching the stomach.

Some people suffer from chronic or repeated belching due to aerophagia or swallowed air. A mild degree of aerophagia is normal, but swallowing too much air while eating or drinking can lead to bloating or excessive belching. Often this happens due to eating too rapidly or while under stress. Some of the air swallowed may pass through the stomach; it is estimated that this may contribute 20–60% of intestinal gases.⁷

How Does EZ-Gest Work?

EZ-Gest is a comprehensive digestive enzyme product designed to help alleviate symptoms such as gas, bloating, and feelings of fullness.*

Digestive enzymes manufactured in the body play key roles in breaking down the complex molecules of food during digestion. Different enzymes work at different sites in the gastrointestinal tract and under different conditions. For example, gastric pepsin does its job in the low, acidic pH of the stomach, while pancreatic enzymes such as amylase, proteases, and lipase work in the higher, more alkaline environment of the small intestine.

EZ-Gest enzymes are “acid resistant” and have the capacity to function within a range of pH that is compatible with that of the stomach during digestion. When taken along with problem foods such as dairy or beans, EZ-Gest enzymes are in the right place at the right time to assist with breaking

down the complex molecules of these foods.*

The plant-based enzymes in EZ-Gest are derived through natural fermentation, and support digestion of all food groups:*

- **Beta-D-galactosidase** (lactase) — Helps digest the lactose, or milk sugar, found in dairy products.*
- **Alpha-D-galactosidase** — Helps digest the complex sugars found in beans and other legumes, and in cruciferous vegetables such as cabbage, cauliflower, and broccoli. (This enzyme is not produced by the body.)
- **Protease** — Helps to break down the peptide bonds in protein foods. The use of multiple proteases — each specific to different pH ranges — improves the activity of EZ-Gest by supporting digestive reactions at different gastrointestinal sites to rapidly increase the rate of nutrient breakdown.*
- **Amylase** — Helps to digest the starchy carbohydrates in foods such as breads, pasta, and potatoes.*
- **Lipase** — Helps to digest the fats in foods.*

Studies suggest that the amount of lactase in EZ-Gest should significantly improve the digestion of lactose in a typical serving of dairy foods.⁸ Clinical studies indicate that ingesting alpha-D-galactosidase with a meal of beans or other gas-producing foods should allow most people to consume a typical serving of these foods with greater ease and comfort.^{9,10}

Why Choose EZ-Gest?

- Complete formula of enzymes known to support digestion of all food groups.*
- Plant-based formula.
- Enzymes in EZ-Gest are acid-resistant, and survive stomach acid without synthetic enteric coatings.
- Scientifically backed formulation containing enzymes clinically proven to work.
- No artificial colors or flavors.
- No synthetic preservatives.

Who Might Benefit from EZ-Gest?

- 50 million Americans who don't produce enough enzymes to digest dairy products, potentially impairing their nutritional status
- Those who cannot digest certain whole-grain foods, fruits, and vegetables such as beans
- People who experience discomfort after eating that is not explained by a medical condition

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How Should EZ-Gest Be Used?

EZ-Gest is recommended for use with meals that may cause digestive discomfort, such as heavy meals, or meals containing problem foods. Take one capsule of EZ-Gest as a digestive aid.* Consumers who are specifically concerned with lactose intolerance or gas-producing vegetables may wish to take EZ-Gest at the start of a meal.

If pregnant, nursing, or galactosemic, ask a healthcare professional. If rare sensitivity to fungal sourced ingredients occurs, discontinue use.

How Can Digestive Function Be Optimized?

- **Exercise.** Regular physical activity stimulates digestion and promotes reabsorption and elimination of gas.
- **Drink plenty of water.** Water helps stimulate the flow of digestive juices and eases the passage of wastes.
- **Consume adequate fiber.** A diet high in fiber aids digestion and promotes regularity. If your dietary fiber intake is low, remember to increase the amounts you consume gradually to allow your body to adjust and minimize minor gas and bloating problems.
- **Avoid overeating,** particularly late at night and meals high in fat. A large meal that is rich in fat can be difficult to digest because fatty foods tend to stay in the stomach longer. Overeating prior to bedtime can also cause pain and bloating because lying flat can trap gas in the stomach and intestine. Overeating may also contribute to obesity, which is associated with more frequent indigestion due to increased abdominal pressure.
- **Relax and enjoy your meals.** Negative emotions can negatively affect digestion — witness the common expression “my stomach is in a knot”! On the other hand, taking time to enjoy a meal can actually help the digestive process. For example, the sight and aroma of food stimulates saliva flow and promotes secretion of gastric juices. Eating slowly helps ensure adequate chewing to kick-start carbohydrate digestion, and also helps avoid the gas-bloat syndrome associated with swallowing air during rapid eating.

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- Optiflora® Two-Product System
- Shaklee Fiber Plan® Daily Crunch™
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- Stomach Soothing Complex*
- BestWater® Carafe

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