Indications:
- Digestive issues requiring differing enzyme action than vegetable based enzymes
- Hypochlorhydria
- Pancreatic insufficiency
- Gall Bladder
- Candida
- Gastric reflux / Heartburn
- Flatulence
- H. pylori
- Constipation / Diarrhea
- Parasites
- Allergies / Sensitivities
- Asthma
- Mineral malabsorption
- Fat soluble vitamin deficiency (A, B12, E, D, F, K)

Directions:
Take 1 pill with every meal and increase 1 pill each day until no gas, bloating, burping, indigestion, feeling of food sitting and not digesting in stomach or constipation. If stomach burns cut back 1 pill next meal. Take at the end of a meal.

Help Restore missing essential hydrochloric acid and digestive enzymes to help food/nutrients absorb, supports gut health and healthy functioning, to help also with acne, fungal, bacterial overgrowth, skin rashes, overall prevention and reversal.

**Hypo Zymase** is a gentle yet highly effective, dual phase digestive product designed specifically to provide support for the stomach and small intestine. This product presents a powerful synergistic blend of two types of HCl (betaine) and Glutamic acid, enzymes, ox bile and organic (bitter) botanicals to gently and effectively help bring balancing terrain factors to the correct binding sites.

As different enzymes require activation at different pH levels this exclusive enteric matrix formulation generates a pH sensitive release of the right synergistic ingredients at the "right time, at the right level and in the right sequence". This insures that the correct enzymes are released in the gastric phase while the additional synergists are released in the duodenal phase. This is a significant point as many HCl digestive products tend to create dependencies due to their lack of synergistic ingredients and "over-amped" HCl content. Hypo Zymase provides the right level of HCl therapy and, typically will not cause a burning sensation or dependence like the straight forms of betaine often do. This is especially true for older patients who often require hydrochloric acid therapy.

The small intestine participates in all aspects of digestion, absorption and transport of ingested materials. It secretes a variety of digestive and protective substances as well as receiving the secretions of the pancreas, liver and gall bladder. Conditions involving the small intestine often result in malabsorption syndromes characterized by multiple nutrient deficiencies. Common causes of malabsorption also include celiac disease (gluten intolerance), food allergy or intolerance, intestinal infections and Crohn's.

Individuals suffering with stomach and intestinal problems most frequently assume that heartburn, indigestion, gas, and reflux are caused by overproduction of stomach acid. This is a common misconception, due to the fact that often, symptoms of stomach acid (hydrochloric acid, HCl over-production and under production are virtually identical.

Other causes of low gastric acid production include malnutrition and excessive use of antacids and H2 receptor antagonists. This can promote inadequate mineral uptake, due to malabsorption of iron, calcium, zinc, etc.

Ingredients (per tablet):

**DUAL PHASE 1 - GASTRIC**
Betaine HCL
160 mg Glutamic (L) Acid
105 mg Papain (16,000 PU/mg)
55 mg Pepsin (1:10000)
105 mg Pancreatin (8X USP) 105 mg
Amylase 21,000 USP
Protease 21,000 USP
.75 mg proprietary blend of Fenugreek seed (Trigonell)

**DUAL PHASE 2 - DUODENUM**
Lipase
1,680 USP
Bromelain (2400 GDU/g)
35 mg
Bile Salts (bovine)
65 mg
A unique *foenum-graecum*, Gentian root (*Gentiana verna*) and Ginger root (*Zingiber officinale*)

Do not chew. Must be taken with meals. Do not use in ulcerative gastrointestinal conditions and when aspirin or other analgesics are being used.

Disclaimer: The commentary is not meant to diagnose, treat or replace conventional treatment, and has not been approved or reviewed by the FDA, Health Canada, BMS, European Union Health Commission, South and Central American regulation agencies etc.
Hypo Zymase

Synergistically Formulated Ingredients

**DUAL PHASE 1 - GASTRIC**

**Betaine HCl** - Naturally derived from beets, betaine or trimethylglycine, acts not only as a carrier for hydrochloric acid, but also as a methyl donor for important liver detoxification pathways. Hydrochloric acid (HCl) digests protein and provides a low pH, which not only helps to kill off harmful bacteria, but stimulates the pancreas to secrete further digestive enzymes.

Adequate levels of HCl are necessary for adequate absorption of protein, calcium, vitamin B12, iron and more. Hydrochloric acid serves many functions:

1. It is the primary digestive juice responsible for breaking down proteins, (denatures) preparing them for assimilation.
2. It acts as a protective barrier, killing many potentially harmful microorganisms in food. The gastric lining is protected from the strong acidic environment by a thick layer of mucus.
3. It acts as a venting mechanism for the build-up of excessive concentrations of hydrogen ions in blood and interstitial fluids. In other words, when we consume acid forming foods and / or engage in acid forming activity, the production of stomach acid uses up considerable amounts of the acid forming material (hydrogen ions) thereby assisting in the elimination of excessive tissue acidity. The stomach acid once combined with food is eventually neutralized further down the alimentary canal by alkaline pancreatic secretions.

**Glutamic Acid** - The combination of betaine and glutamic HCl will in most cases, perform better than straight betaine which is often given in higher doses leading to subclinical/clinical contraindications. Glutamic HCl has been reported to be gentler on the stomach than other forms of supplemental HCl.

**Papain** - Is an enzyme isolated from the unripe papaya fruit. It has been shown to be able to digeat wheat gluten (the protein portion of wheat) and render it harmless in celiac disease subjects.

**Pepsin** - Is a protein-digesting enzyme in the stomach. It’s responsible for the hydrolysis of proteins into peptides. Betaine HCl and glutamic acids enhance the conversion of endogenous inactive pepsinogen to active pepsin. Its release is mediated by the stimulatory action of the vagus nerve and gastrin when food is ingested.

**Pancreatin 8X** - Is a mixture of several pancreatic enzymes produced by the exocrine pancreas. Porcine pancreatin, (very similar to human) consists of proteases (to break down protein), amylases (to break down carbohydrates) and lipases (to break down fats). Together they aid the body’s natural digestion process and may improve nutrient absorption. When taken between meals they act as systemic enzymes providing soothing comfort to the body. Pancreatin 8X contains eight times the enzyme activity as pancreatin USP.

**DUAL PHASE 2 - DUODENUM**

**Lipase** - Lipase, along with bile, is a fat splitting enzyme which converts triglycerides to monoglycerides and free fatty acids for control of fat in the body, blood, and liver. Deficiency of lipase results in malabsorption of fats and the fat soluble vitamins (A, D, E, F, K).

**Bromelain** - found in pineapple, is useful as an aid to protein digestion and is effective as a substitute for pancreatic enzymes in the treatment of pancreatic insufficiency.

**Bile Salts** - Bile is excreted by the liver and stored in the gall bladder until needed to assist in the digestion of lipids, or fats. Bile salts, which are the active components of bile, assist in breaking down cholesterol and other fat components in the intestines. Bile emulsifies and thus these fats, permitting intestinal and pancreatic lipases to split the triglycerides into diglycerides and monoglycerides, and finally into free fatty acids and glycerol. A deficiency of bile production, or decreased excretion of bile by the gall bladder can lead to a wide variety of digestive challenges including gall stones. Gall stones are formed from various combinations of cholesterol, concentrated bile, minerals and pigments. At the core of most gall stones can be bacterial infections and parasitic activity.

**Fenugreek seed** (Trigonella foenum-graecum) - The name fenugreek is actually a variation on the Latin, Foenum graecum, which means Greek hay. It most popularly known in Indian Ayurveda as “Meth”; an herb which stimulates digestion, reduces gastric inflammation, and lowers cholesterol. Fenugreek has been long cultivated for therapeutic use in China, India, Morocco and Turkey, where seeds are used today as an antioxidant for liver and pancreas health.

**Gentian root** (Gentiana verna) - Gentian root is one of the strongest bitters known. It embodies the best of the bitters’ known characteristics: stomachic, chologogue, choleric, sialagogue, appetite stimulant, and digestive tonic. Gentian has given excellent results in the treatment of dyspepsia and several other forms of digestive challenges. The herb has antibacterial properties, and several of its components are anti-inflammatory. Gentian root has been shown to reflexively stimulate the gall bladder and pancreas, and mucous membranes of the stomach, thus contributing to an increase secretion of digestive juices and enzymes. Large doses have been known to cause gastroenteritis-like irritation, while smaller doses will help to alleviate many gastrointestinal related problems. For this reason we have kept the amount at a low level which enhances the effectiveness of the formulation without the risk of contraindication.

**Ginger root** (Zingiber officinale) - Ginger has been discovered to be a facilitator to the digestion process. Elevated sugar levels after a meal may cause the stomach to lose its natural pace re emptying its contents. Ginger helps in regulating high sugar levels that may disrupt digestion and soothe the stomach, thus, maintaining its regular rhythm. In laboratory trials, gingerol has been shown to increase the motility of the gastrointestinal tract by regulating peristalsis. In simple terms, this means the wave-like motions which move food through the digestive system become more efficient, helping to ease diarrhea and constipation. Although no specific studies have been carried out to date, it is also thought this action helps to alleviate painful trapped gas in the same way.

**References**


Hunzitt, A et al. Gastric acidity in older adults. JAAM 1997; 278: 9-662.


