D.E.F

Digestive Enzyme Support

Helps to maintain healthy digestive function with advanced enzymatic support.

Orthoplex Green D.E.F is a unique digestive enzyme formula designed to support digestive function by helping to break down, absorb and assimilate the nutrients from the food we ingest.

☑ Gluten Free

☑ Lactose Free

AUST R 19973

Pack Size: 60 tablets and 180 tablets

Recommended Dose: Take 1-2 tablets with each meal, or as recommended by your registered healthcare practitioner.

Storage: Store below 30°C in a cool, dry place, away from direct sunlight.

REFRIGERATE AFTER OPENING.

Full disclosure of excipients in every formulation

Indications

- Nutritional supplement
- Digestive enzyme formula
- Contains pancreatic enzymes which are important in maintaining healthy digestive function
- Bromelains have been shown to have proteolytic activity
- Synergistic formula of proteolytic enzymes

Each Tablet Contains

Pancreatin	200mg
equiv. Protease	280 BP units
equiv. Lipase	4000 BP units
equiv. Amylase	4800 BP units
Bromelains	100mg
Trypsin	30mg

Excipients

Calcium hydrogen phosphate dihydrate, microcrystalline cellulose, crospovidone, glucose monohydrate, hypromellose, macrogol 400, magnesium stearate, maltodextrin, povidone.

This product contains ingredients of porcine origin.

Warnings

If symptoms persist consult your healthcare practitioner.

Technical Information

As we age, digestive activity is often compromised, leading to reduced ability to assimilate and break down the food we consume into nutrients and amino acids for the metabolic processes of the body.[1; 2] Most of digestion and absorption takes place in the small intestine and is mediated by pancreatic amylase, protease, lipase and bile. These enzymes break down carbohydrates, proteins and lipids into more readily available components. (Figure 1) Therefore, without proper enzyme production, the body has a more difficult process of digesting food, which may then be associated with reduction in nutrient absorption and availability.[1]

Pancreatic Enzymes are Important in Maintaining Healthy Digestive Function

Pancreatic exocrine tissues produce digestive enzymes, which are blended with sodium bicarbonate and pool in the pancreatic duct. This 'pancreatic juice' flows through the pancreatic duct and ultimately empties into the duodenum to break down proteins, fats and carbohydrates. Problems can occur when there is a dysfunction in the capacity of the pancreas to produce enzymes or when the body's demand for enzymes exceeds the supply. This dysfunction occurs for a variety of reasons, including genetic predisposition, illness, injury/trauma, excessive exercise, ageing, toxic exposure, or a combination of the above.[3]

Some individuals possess an inherent or genetic weakness in the ability to create these enzymes.[1] Certain dietary choices, such as excessive amounts of alcohol, refined carbohydrates and fat, as well as a high meat and cooked food diet, with few raw, enzyme-rich foods, may also stress the body's digestive capacity.[1] Without adequate digestive enzymes to support food breakdown and nutrient absorption, typical signs and symptoms associated with inadequate digestive function may occur. (Table 1)

Indigestion and fullness lasting 2-4 hours after eating
Bloating
Excessive passing of gas
Abdominal cramps and aches
Difficulty gaining weight
Roughage and fibre causing constipation
Alternating diarrohea and constipation
Undigested food and mucous in the stool

Table 1: Signs and Symptoms Associated With Reduced Pancreatic Enzymes [1]

The principal digestive enzymes include:

- Proteolytic enzymes to digest dietary proteins
- Lipases to digest dietary triglycerides and other lipids

Amylase to digest starches and other polysaccharides[1]

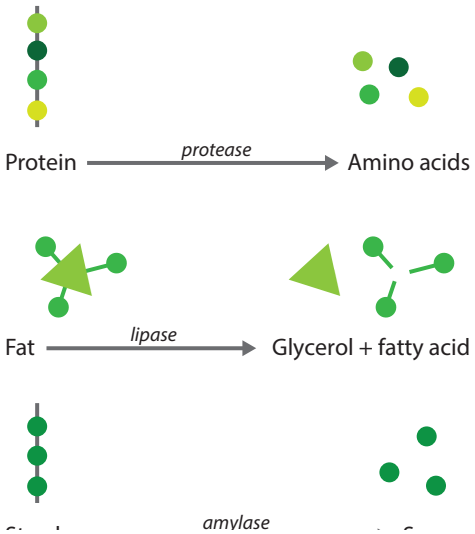

Figure 1: Digestive enzyme action on macronutrients

To effectively digest proteins, fats and carbohydrates, an adequate amount of pancreatic digestive enzymes must be available in the pancreatic juice to ensure optimal digestive function.[4] Adequate quantities of enzymes must be supplied to the right place, at the right time, and with a favourable pH.

The digestion of fats largely takes place only in the duodenum and, along with pancreatin, is highly sensitive to pH. Use of digestive enzymes is recommended at the end of a meal, to maximise the pH buffering effect of food.

Bromelain Possesses Proteolytic Activity

As a proteolytic enzyme, Bromelain has been shown to be an efficacious digestive enzyme.[6, 7] Unlike pancreatic enzymes, Bromelain has a relatively broad pH range through which it can remain effective, providing proteolytic activity in the stomach as well as in the intestine.[3] Bromelain may therefore offer additional support for protein digestion when combined with Pancreatin.

References available upon request.