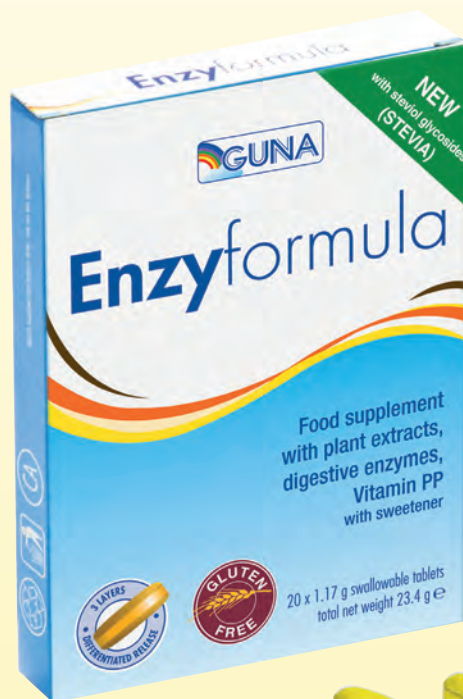




**NEW**  
with steviol glycosides  
(STEVIA)

# Enzyformula

Ideal combination of  
**controlled-release enzymes and  
plant extracts**



**PROVEN EFFECTIVENESS**



## DIGESTIVE DISORDERS AND ROLE OF ENZYMES

Epidemiological data\* show that one Italian out of 5 suffers from indigestion or diseases of the Digestive System.

- **Stress and overeating**
- **Intake of synthetic drugs**

- **Unhealthy lifestyle**
- **Ageing**

cause a decrease or insufficient enzyme secretion leading to a slow-down of the function and efficiency of the Digestive System.

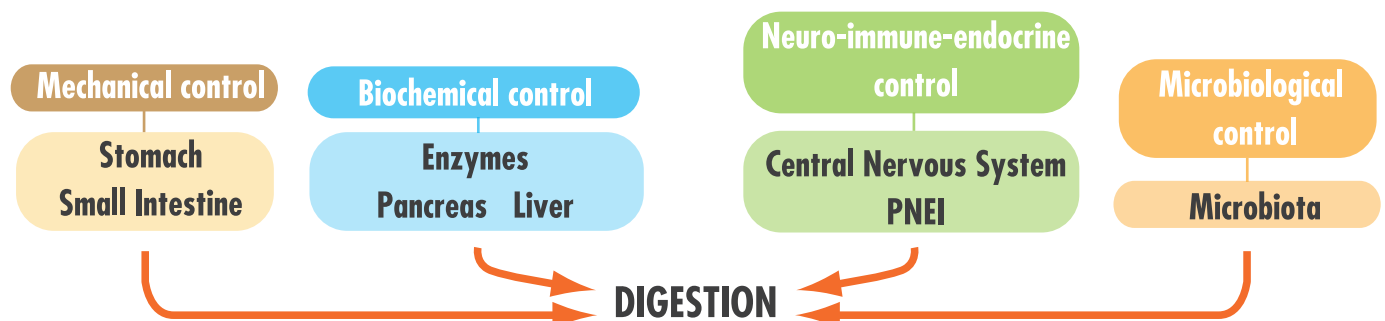
All this results in a reduced or incomplete digestion of **milk derivatives, complex sugars, proteins, fats, vegetables and fibers**, and some symptoms may arise such as:

- **Digestive disorders, heaviness, bloating, sleepiness**
- **Increase in the incidence of fermentation with bloating**

After **40** years  
of age, enzyme  
function decreases  
by **50%**

## PHYSIOLOGICAL DIGESTION

Digestion is a complex and well-structured process characterized by:



Digestive processes, or "**digestive chrono-physiology**", are directed by a precise "**pacemaker**": when food passes through the digestive tract, the function of the organs involved in the digestive process is activated and some enzymes are secreted.

# Enzyformula

**Ideal combination to balance digestive processes**



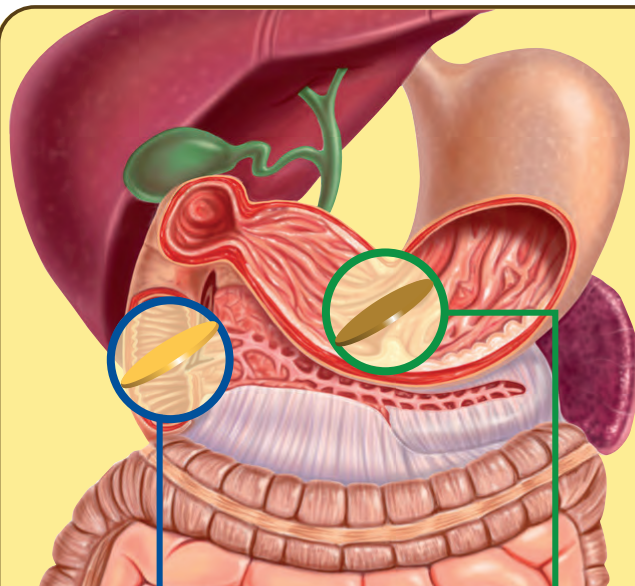
**New targeted and selective approach to digestive disorders**

**Helps the hepatobiliary and pancreatic function**

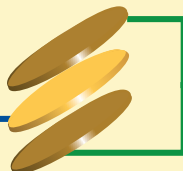


**CONTROLLED-RELEASE  
GASTRO-RESISTANT  
TABLETS**

## **"CHRONOPHYSIOLOGY" OF ENZYFORMULA**



The **3** layers of **Enzyformula**



### **"FAST" OUTER LAYER**

Quick release (first 60 minutes) in the gastroduodenal region

**Maximum digestive activity of the enzyme blend**

**Maximum activity of plant extracts due to the pH of the gastric environment**

### **"SLOW" INNER LAYER**

Gastro-resistant, delayed-release nucleus goes through the gastric environment without being affected by acidity and slowly releasing its components in the bowel.

**Antioxidant activity**

## Evaluation of the effects of the dietary supplement Enzyformula in functional disorders of the digestive system.

Chiara Biondani<sup>1</sup>, Luigi Coppola<sup>2</sup>, Maurizio Corbellini<sup>3</sup>, Maria Paola Gallinari<sup>4</sup>, Barbara Paolini<sup>5</sup>, Chiara Rosso<sup>6</sup>, Massimiliano Scala<sup>7</sup>, Antonino Tartamella<sup>8</sup>, Marco Temporini<sup>9</sup>

Advanced Therapies - Anno III - N° 4 - Febbraio 2014 -24-33

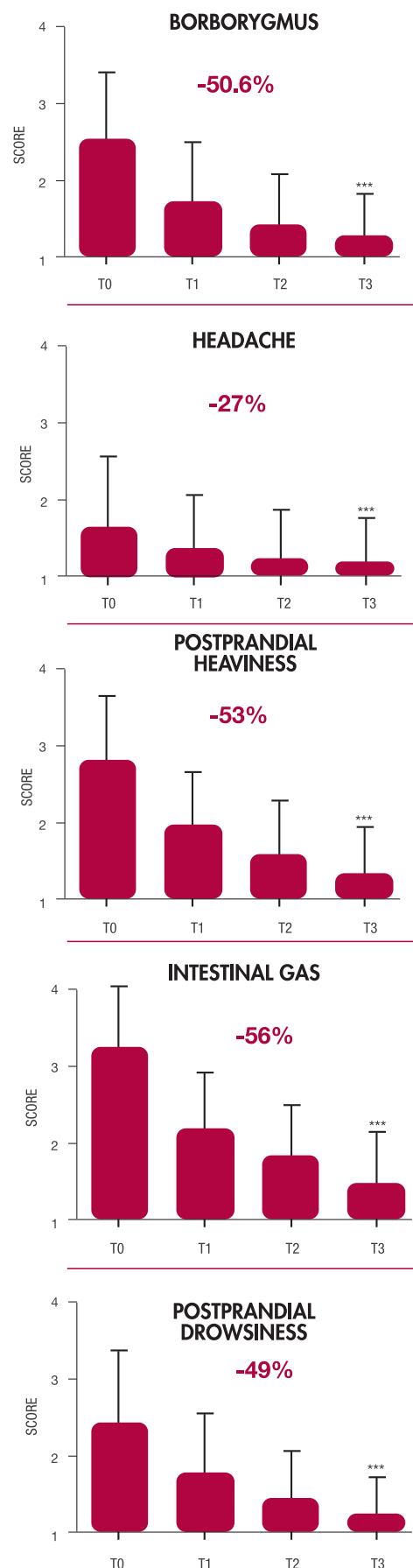
### Abstract

The **EnzyOBSERV** observational multicentre clinical study was focused on dyspepsia secondary to enzymatic dysfunction and malabsorption syndrome. Its aim was to evaluate the effectiveness of treatment of these diseases with the dietary supplement **Enzyformula**.

The study was conducted on **100 subjects** aged over 18 years, enrolled in accordance with certain inclusion/exclusion criteria and treated with orally administered dietary supplement **EnzyFormula** at a dose of **2 tablets/day** for a period of three months. The study also showed the complete safety of the product.

### Conclusions

The data collected show that a dietary supplementation with EnzyFormula ensures a correct intake of enzymes and active plant extracts that control digestive function, associated with significant reduction of symptoms secondary to reduced enzymatic secretion and insufficient digestion of complex foods.



Graph showing the efficacy of treatment of functional dyspepsia with EnzyFormula. EnzyFormula's action is established rapidly and is boosted and maintained with regular use of the product, thereby significantly improving the symptoms.

## ENZYFORMULA INGREDIENTS

### "FAST" OUTER LAYER

**ENZYMES** from biotechnological fermentation of maltodextrin:

**Lactase** or  **$\beta$ -galactosidase**: enzyme that hydrolyzes the  $\beta$ -D-galactoside bond, leading to the formation of D-galactose and D-glucose. It starts decreasing in childhood. This results in indigestion of foods containing lactose (milk, yogurt, cheese, dairy products). **Enzyformula naturally and effectively helps digest milk and its derivatives.**

**Amylase**: digestive enzyme capable of catalyzing the hydrolysis of the  $\alpha$ -1, 4-glycosidic bonds of polysaccharides to obtain oligosaccharides, dextrin, maltose and D-glucose, essential to control intestinal fermentation.

**Lipase**: enzyme that hydrolyzes triglycerides to fatty acids and glycerol. Essential for fat metabolism and for energy balance.

**Cellulase**: enzyme capable of hydrolyzing the cellulose in vegetable fibers. A diet with a sufficient intake of vegetable fibers is recommended, but the human body is not capable of producing this enzyme. So, a supplementation of this enzyme is useful to counteract fermentation.

**Papain and Bromelain<sup>3</sup>**: enzymes of plant origin (from papaya and pineapple), capable of hydrolyzing proteins to oligopeptides and amino acid. Protease deficiency may lead to putrefaction.

### PLANT INGREDIENTS

**Stonebreaker** (*Phyllanthus niruri* L. - grass standardized dry extract)<sup>4-7</sup>: its natural extracts containing *phyllanthin*, *hypophyllanthin*, *triacontanol* are useful to help the physiological function of hepatocytes.

**Fumitory** (*Fumaria officinalis* L. - grass and flowers dry extract)<sup>8</sup>: its main ingredients (*flavonoids*, *fumaric acid* and *mineral salts*) help digestion and have a detoxifying, diuretic, cholagogue and bile flow regulating action.

### VITAMINS

**Vitamin PP<sup>9</sup>**: B group Vitamin, essential for a great number of biological processes. It is particularly useful to maintain the trophism and the function of the mucous membrane and to reduce the values of triglycerides and LDL cholesterol in favour of HDL cholesterol. Vitamin PP plays an active role in the protection of microvessels against oxidative damage, and is a key factor for the absorption and metabolism of nutrients.

### "SLOW" INNER LAYER

#### PLANT INGREDIENTS

**Turmeric** (*Curcuma longa* L. - rhizome standardized dry extract)<sup>10-12</sup>: among its active ingredients, *curcuminoids* (*curcumin*, *demethoxycurcumin* and *bisdemethoxycurcumin*) are widely studied to help digestion and are well-known for their antioxidant, anti-inflammatory and antiviral properties. The European Commission approved curcumin for the treatment of the disorders of the liver and gallbladder.

#### ANTIOXIDANTS

**SOD (SuperOxide Dismutase)<sup>13-14</sup>**: extract from melon juice concentrate (Extramel<sup>®</sup>), useful to counteract any damage induced by oxidative stress to the body tissues, since it has important anti-free radicals properties.

## ENZYFORMULA ACTIONS

- HELPS PROPER DIGESTION OF FOOD
- PREVENTS INDIGESTION AND MALABSORPTION
- PREVENTS FERMENTATION AND PUTREFACTION
- HELPS THE BODY DETOXIFICATION PROCESSES
- PROTECTS THE GASTRO-INTESTINAL MUCOSA
- SUPPORTS LIVER AND PANCREAS FUNCTION
- COUNTERACTS IMPAIRED DIGESTIVE FUNCTION DUE TO AGEING



## ENZYFORMULA BENEFITS

- COMPLETE AND SPECIFIC SUPPLEMENTATION OF DIGESTIVE ENZYMES AND PLANT INGREDIENTS
- CLINICALLY TESTED SYNERGY AND FAST ACTION
- GASTRO-RESISTANT, CONTROLLED-RELEASE TABLETS FOR OPTIMAL EFFECTIVENESS, ACCORDING TO THE DIGESTIVE CHRONOPHYSIOLOGY
- HIGH COMPLIANCE



## WHEN TO USE ENZYFORMULA

- **DIGESTIVE DISORDERS DUE TO A REDUCED ENZYME SECRETION:**

- Abdominal heaviness
- Meteorism
- Abdominal bloating
- Drowsiness after eating
- Headache after eating

- **INDIGESTION OF:**

- Lactose (milk, yogurt, cheese and dairy products)
- Complex proteins (meat, casein)
- Vegetables rich in fibers
- Foods high in fats



Milk



Proteins and fat



Vegetable Fibers

- **DYSBIOSIS AND MALABSORPTION**

- **OVERWEIGHT AND OBESITY**

- **LIVER AND PANCREAS PROTECTION**

## HOW TO USE ENZYFORMULA

Take 1 swallowable tablet 1 or 2 times per day just before the main meals, with a glass of water.

## ENZYFORMULA: COMBINATIONS

**Enzy**formula  
+  
**Colostr**noni



**Malabsorption syndromes**

**Enzy**formula  
+  
*pro***FLORA**<sup>TM</sup>



**Dysbiosis**

## INGREDIENTS

Bulking agents: microcrystalline cellulose (*cellulose gel*), calcium phosphates; Stonebreaker (*Phyllanthus niruri* L.) grass standardized dry extract, Anti-caking agents: fatty acids, cross-linked sodium carboxymethyl cellulose, silicon dioxide, magnesium salts of fatty acids, talc; Fumitory (*Fumaria officinalis* L.) grass and flowers dry extract, enzyme combination (*amylase, lactase, lipase, cellulase*), Papain, Bromelain, Turmeric (*Curcuma longa* L.) rhizome standardized dry extract, Vitamin PP (*Niacin*), Coating agents: hydroxypropyl cellulose; Superoxide dismutase (SOD), Sweetener: steviol glycosides.



### NUTRITIONAL FACTS

	Per 100 g	Daily intake 2 tablets	%NRV* 2 tablets
Energy	1117.05 kJ 269.1 kcal	26.14 kJ 6.30 kcal	
Fat	7.7 g	0.18 g	
of which saturates	6 g	0.14 g	
Carbohydrate	28.6 g	0.67 g	
of which sugars	25 g	0.59 g	
Protein	4.35 g	0.10 g	
Salt	0.22 g	0.005 g	
Stonebreaker	17094.02 mg	400 mg	
Enzyme combination (amylase, lactase, lipase, cellulase)	8547.01 mg	200 mg	
Fumitory	8547.01 mg	200 mg	
Bromelain	4273.50 mg	100 mg	
Papain	4273.50 mg	100 mg	
Turmeric	3418.80 mg	80 mg	
Vitamin PP	1538.46 mg	36 mg	225
Superoxide dismutase (SOD)	427.35 mg	10 mg	

\*NRV: Nutrient Reference Values

## WARNINGS

Do not exceed the stated recommended daily dose. Store the product in a cool and dry place, protected from direct sunlight and heat sources. The expiry date refers to a product correctly stored in its original and undamaged packaging. Keep out of reach of young children. Food supplements should not be used as a substitute for a varied diet and a healthy lifestyle.

**Gluten free.**

## DIRECTIONS AND USES

2 tablets daily are recommended. Swallow 1 tablet with a glass of water right before or after the 2 main meals.

## REFERENCES

1. Gayla J.Kirschmann et Al. "Almanacco della Nutrizione" Quarta edizione Alfa Omega Editrice 1999
2. Montgomery et Al. "Biochimica - aspetti medico biologici" Ed. ed-ermes - Milano
3. Roxas M. "The role of enzyme supplementation in digestive disorders" Altern Med Rev. 2008 Dec;13(4):307-14
4. Srirama R. et Al. "Hepatoprotective activity of Indian Phyllanthus" Pharm Biol. 2012 Apr 6. [Epub ahead of print]
5. Bhaskarmurthy Deepak Hiraganahalli et Al. "Hepatoprotective and antioxidant activity of standardized herbal extracts" Pharmacogn Mag. 2012 Apr-Jun; 8(30): 116-123
6. Manjekar A.P. et Al. "Effect of Phyllanthus niruri Linn. treatment on liver, kidney and testes in CCl4 induced hepatotoxic rats" Indian J Exp Biol. 2008 Jul;46(7):514-20
7. Boim M.A. et Al. "Phyllanthus niruri as a promising alternative treatment for nephrolithiasis"
8. Campanini E. "Dizionario di fitoterapia e piante medicinali" 2004 Tecniche Nuove pp 216-219
9. Mackay D. et Al. "Niacin: chemical forms, bioavailability, and health effects" Nutr Rev. 2012 Jun;70(6):357-66. doi: 10.1111/j.1753-4887.2012.00479.x
10. Sheldon S. Hendler "Physicians' Desk Reference" CEC Editore 2010
11. Muhammed Majeed, Ph.D. et al. "Curcuminoids - antioxidant phytonutrients" (1995)
12. Muhammed Majeed, Ph.D. et al. "Turmeric and the Healing Curcuminoids" Sabinsa (1996)
13. Yasui K., Baba A., "Therapeutic potential of superoxide dismutase (SOD) for resolution of inflammation. Inflamm Res 2006;55:359-63.
14. Segui J., Gironella M., Sans M., Granell S., Gil F., Gimeno M., et Al. "Superoxide dismutase ameliorates TNBS-induced colitis by reducing oxidative stress, adhesion molecule expression, and leukocyte recruitment into the inflamed intestine" J Leukoc Biol 2004;76:537-44

## PACKAGING

20 x 1.17 g swallowable tablets, Net weight 23.4 g.



GUNA S.p.a.

Via Palmanova, 71 - 20132 MILAN - ITALY  
tel. +39 02 280181 - fax +39 02 28018449  
www.gunainc.com - e-mail: export@guna.it  
www.gunainternational.com