

CalmaLax

A Natural Rhythm for Lazy Intestines

The rhythms forced on us by “modern living” often have their consequences at a gastrointestinal level. The digestive system is very delicate, and, in addition to our diets, is subject to two critical influences: nerves and hormones. Proper GI function depends on both these factors. Stress, anxiety, and nervous disorder can have significant consequences on the intestine, as can hormonal disturbances or strong emotions. One of the first consequences is intestinal atony - the intestine loses its natural rhythms and becomes “lazy.” In turn, a lazy intestine can lead to many other health problems that we fail to realize are related to basic GI function. Thankfully, nature offers a solution: CalmaLax supports digestive functions, increase the fecal mass and produces and liberates bile. It then acts as an antispasmodic – very important when there are problems of a nervous origin together with aerophagia, stomach cramps and dysentery. Anti-inflammatory and anti-oxidant extracts are also in the formula, and they help to correctly balance of chemistry of the intestinal wall.



Ingredients

Water
 Flax (*Linum usitatissimum*) seed
 Agar (*Gelidium armansii*) stem
 Chinese Rhubarb (*Rheum officinale*) root
 Artichoke (*Cynara scolymus*) leaf
 Chamomile (*Matricaria recutita*) flower
 Gentian (*Gentiana lutea*) root
 Peppermint (*Mentha piperita*) leaf
 Anise (*Pimpinella anisum*) seed
 Licorice (*Glycyrrhiza glabra*) root
 Radish (*Raphanus sativus*) root
 Bitter Fennel (*Foeniculum vulgare*) fruit
 Marshmallow (*Althaea officinalis*) root
 Lemon Balm (*Melissa officinalis*) leaf
 Juniper (*Juniperus communis*) bark
 natural flavors
 natural caramel color (strictly to control slight variations in product appearance due to seasonal and geographic variations in natural herbs)

Herb Discussion

All plants used by Balestra & Mech are either wild or have not been treated with chemical agents. All products contain no alcohol, no sugar and no preservatives.

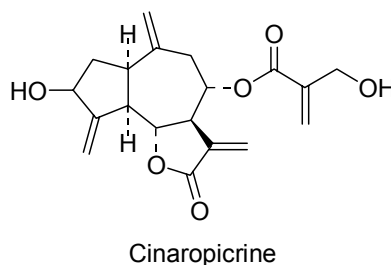
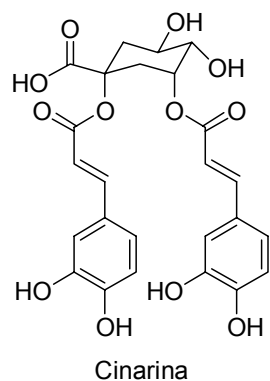
CalmaLax works thanks to the gentle combination of all its ingredients. The first group of herbs tones the whole digestive process: activity starts in the Stomach by herbs that protect its wall, such as Marshmallow,

while other extracts, such as Bitter Fennel, Anise, Juniper and Agar stimulate the digestive process and the formation of the faecal mass.

Marshmallow is a plant found in the marshy areas of Europe and North America. This herb is characterised by a high level of complex carbohydrates (mucilages) which mechanically protect the gastric wall. This molecule assists the mucus that is normally secreted by the gastric cells, increasing the defences of the gastric wall in the presence of naturally-occurring hydrochloric acid. It acts by spreading over the inflamed wall, therefore creating a protective barrier. The extract is very dark in color and does not present any type of toxicity. Bitter Fennel and Anise also carry out a depurative and detoxifying action throughout the gastrointestinal apparatus. **Bitter Fennel's** essential oil has an activity noted by the ancient Greeks. The main ingredient responsible for this activity is anethole. It is active in problems tied to bad digestion because of nervousness or anxiety. **Anise** was used for the first time by the Chinese in their traditional medicine. Particularly important is the anethole also found in Anise's essential oil. The extract is active in problems linked to bad digestion. It improves the digestive process and increases the speed of gastric emptying. A secondary action is on headaches, sickness and palpitations tied to gastric problems. The action of **Juniper** is also broad. It acts not only at a gastric but also at a hepatic and renal level. **Agar** can be obtained through decocting some species of red algae of the Gelidium and Gracilaria types, originally from the Atlantic and Pacific Ocean coasts. More than 90% of the extract is made of polysaccharides, the most abundant being agarosium and agaropectine. It is useful as a laxative: when it comes into contact with water it swells, increasing the fecal mass. The herb is not harmful when the recommended dosage is used.

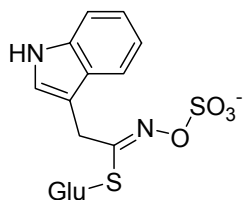
A second group of extracts, namely Artichoke, Chinese Rhubarb and Radish, contribute to the regularization of GI function by increasing and easing the liberation of bile in the intestinal lumen.

The **Artichoke** belongs to the Asteracea family and has common ancestral roots with the thistle. Its activity comes from the presence of caffeic and flavonic derivatives in its extract. Both chlorogenic acid and cinaropicrine are among the caffeic acid derivatives.



The Artichoke acts mainly as a hepatic depurator, and works in two ways. First, it increases biliary acid synthesis, second it reduces cholesterol synthesis. Its choleric and cholagogic activities make the artichoke an unequalled stimulant of the hepatic functions: the former favours and stimulates the production of bile while the latter favours the flow of bile from the liver to the intestine. The extract is not harmful. **Rhubarb** is known as a cholagogue and choleric, which makes it a good hepatic drainer, just like the artichoke. The

plant is not harmful in medicinal doses, but care must be taken during pregnancy and when nursing because some constituents can be passed to the baby. Finally, **Radish** also works in different ways, both as an hepatobiliary and a diuretic. This herb is characterised by its sulphorates glucosinolates compounds, of which the most important is glucobrassicine. As mentioned previously, the herb helps the kidneys by favoring the elimination of urates, and also at a hepatic level, where it stimulates the secretion of bile that is rich with enzymes. The herb is not harmful if taken over long or short periods.



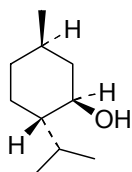
Glucobrassicine

Peppermint and **Lemon Nalm** are both spasmolytic and muscle relaxants: they help solve gastroenteric problems tied to nervousness.

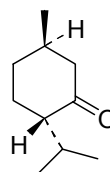
Peppermint belongs to the Lamiacea family and is without doubt the most grown and studied. The essential oil is the most active component, but the flavonoids, carotenoids and triterpenes are also important. The composition of the essential oil is widely known: 65% is made of a combination of menthol (the main element) and menthone.



Mint



(-)-menthol (1R, 3R, 4S)

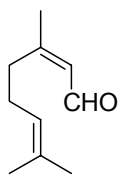


(-)-menthone

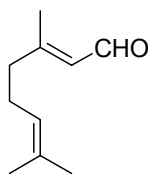


Lemon Balm

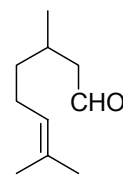
The menthol present in the herb sedates and cures the colon, a part of the intestine critical to depuration because it contains the bacterial flora and re-absorbs water and electrolytes. It has been calculated that the DL_{50} in menthol is equal to 0.2 mg/kg, an amount that has never been reached by therapeutic doses. **Lemon balm** is another Lamiacea originally from Asia Minor. It arrived in Europe during the middle ages and since then has been used as a sedative for the gastrointestinal mucus. Terpenic derivatives which have a sedative action have been found in its composition, among which neral (*cis*-citral), geranial (*trans*-citral) and citronellal derivatives.



Neral



Geranial

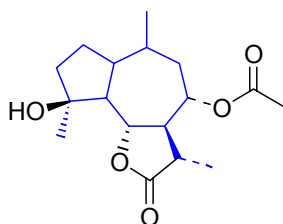


Citronellal

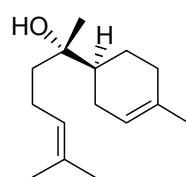
Laboratory tests showed a positive effect on gastroenteric disturbances connected to anxiety or stress. The extract is not harmful if taken over long or short periods.

The last group of extracts includes herbs that have an anti-inflammatory, anti-oxidant and immunostimulant effects, with positive effects at a gastroenteric level.

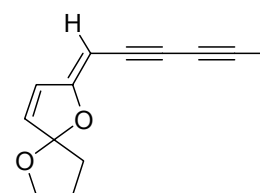
Flax is a spontaneous annual plant that is used for its textile fibres. Its oil and seeds have been studied for a long time, however, because of their therapeutic properties. Flax has emollient and anti-inflammatory properties. **Chamomile** is an Asteracea that is widespread throughout Europe, and widely used for the action of its two main chemical compounds: the essential oil and the polyphenol. The essential oil is blue because of the presence of azulene derivatives, mainly camazulene. This isosteric molecule of naphthalene is a degradation product of matricine. Other constituents are bisabolol and (Z)-en-in-dicycloether.



Matricine (Camazulene in blue)

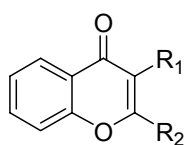


α -bisabolol



(Z)-en-in-dicycloether

The extract is mainly anti-inflammatory, antispasmodic and febrifugal, and is safe because the DL_{50} exceeds 5 g/Kg. The name **Gentian** seems to come from the king of Illiria Gentius, who was the first to recognize the virtues of this herb. After this, it was mentioned by Dioscoride and Pliny among the medicinal plants. Only the root of this plant is used because it has a strong gastrointestinal activity and its effect is similar to that of Chinaroot. **Licorice** is one of the most important plants in traditional Chinese medicine, where it was used for various types of pathology. Glycirizine and flavonoids are among its main ingredients. Glycirizine has an anti-inflammatory action, as well as reducing the production of cortisol. Flavonoids are a class of natural molecule and are characterised by their flavonic, flavonolic, isoflavonic and flavononic substructures that have a prevalently anti-oxidising and protective effect on the cell walls.



$R_1=H, R_2=Ph$ Flavone

$R_1=OH, R_2=Ph$ Flavonol

$R_1=Ph, R_2=H$ Isoflavone

$R_1=2H, R_2=H+Ph$ Flavonone

This activity is not only important at a gastric level, but also at a hepatic level, enough to support the use of liquorice in cases of hepatitis.

Recommended Use

We recommend taking one or two measures diluted in half a glass of lukewarm water before going to bed (shake before using).

Nutrition information – per 10ml serving

Energy: 1.4 Kcal – 6.0 kJ
Protein: 0.005 g
Carbohydrate: 0.08 g of which sugars: 0.00 g
Fat: 0.05 g of which are saturated: 0.00 g
Fiber: 0.005 g

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This product should not be used to replace prescribed medicine.

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