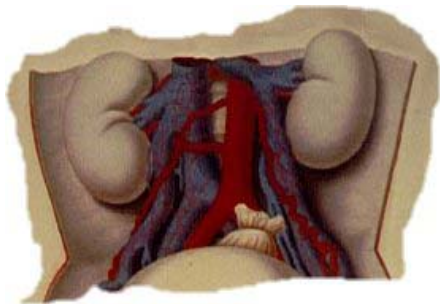


## Fontana Cleanse

### Detoxify the Body

Our organism constantly encounters harmful or damaging substances either from the environment or produced by our own metabolic processes. The nature of these substances varies: from inorganic and organic substances with a high or low molecular weight, or simply incompletely digested materials. Even the ways in which these agents attack us vary: through the lungs, the digestive system or the skin. At the same time, however, our body works every day to eliminate these “poisons,” mainly through the liver and the kidneys, but important roles are also filled by the skin and the lungs. Today more than ever these cleaning systems are put under stress for various reasons. First, the environment in which we live has changed and, as a result, our food has too. The toxins we come into contact with every day place stress on our body’s ability to cleanse itself. But help is available.



Detail: the Kidneys

The liver is critical to the cleansing process. All the substances that we introduce as food must filter through it as they travel through the circulatory system. Important metabolic oxidation and conjugation reactions take place inside this organ. The substances eliminated by the liver are generally lipophilic with a high molecular weight. The products extracted by our liver are poured back into the intestine through the biliary tract, which is why it is so important to ensure the best possible functioning of that GI process. Properly selected depurative herbs are a natural way to support that mechanism.

The kidneys maintain the water/salt level of the organism, and it is through them that metabolites and xenobiotic hydrophiles with a low molecular weight are eliminated.

The skin eliminates catabolites through the sebaceous and sweating glands, as do the lungs, which also eliminate volatile substances (such as the sulphurated derivatives of garlic).

FONTANA CLEANSE acts at all these levels, stimulating the activity of these organs and at the same time reducing the absorption of potentially toxic substances. FONTANA CLEANSE is a comprehensive herbal solution thanks to the presence of 19 carefully selected and synergistic extracts.

It is important to underline the absence of alcohol in the formula, a fundamental point when looking for a detoxifying product. Alcohol is, in fact, metabolised through the hepatic oxidation passages, therefore what makes the product work would be consumed by the alcohol. The same is true for sugar, which is rigorously absent from the formula.

### Ingredients

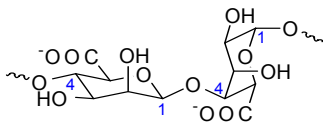
Water  
Peppermint (*Mentha piperita*) leaf  
Radish (*Raphanus sativus*) root

Licorice (*Glycyrrhiza glabra*) root  
 Artichoke (*Cynara scolymus*) leaf  
 Horsetail (*Equisetum arvense*) grass  
 Burdock (*Arctium lappa*) root  
 Dandelion (*Taraxacum officinale*) root  
 Chinese Rhubarb (*Rheum officinale*) root  
 Gentian (*Gentiana lutea*) root  
 Lemon Balm (*Melissa officinalis*) leaf  
 Yellow Cinchona (*Cinchona calisaya*) root  
 Juniper (*Juniperus communis*) bark  
 Couch Grass (*Elymus repens*) stalk  
 European Elder (*Sambucus nigra*) berry  
 Bladderwrack (*Fucus vesiculosus*) thallus  
 Anise (*Pimpinella anisum*) seed  
 Parsley (*Petroselinum crispum*) leaf  
 Uva Ursi (*Arctostaphylos uva ursi*) leaf  
 Horehound (*Marrubium vulgare*) leaf  
 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.

One of the most interesting elements of this product is **Fucus Vesiculosus**, thanks to its high alginic acid content (more than 40%).



Alginate:

-4)-β-D-ManpA(1-4)-α-L-GulpA(1-

Alginic acid is found in the cellular wall of the brown algae - chemically it is a linear polyuranide made up of units of β-D-mannuronic acid and α-L-gulonic acid with 1-4 type bonds.

There are parts of the chain in which the two monomers alternate, others in which only one is present. The alga is characterised by a very long thallus from which the extract is obtained.



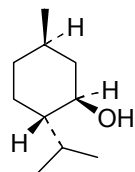
Fucus Vesiculosus

Alginic acid has two important properties: first and most important, it is not absorbed by our organism, and second it has gelling properties. This molecule forms gelatinous masses that can absorb heavy metals such as lead, cadmium, mercury and other toxic substances, preventing them from being absorbed. It is used as a valid depurator because of this. The alga is not harmful in any way, and it is in the formula because of this characteristic.

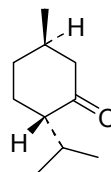
The formula works very well on the gastrointestinal tract and contains other important extracts such as anise, peppermint, lemon balm, licorice, juniper, gentian and yellow cinchona which are important for reducing the work and fatigue of the liver. The effect of these herbs is rather various, but generally they improve the digestive process by improving gastroenteric transit and increasing elimination. They act both at a local and a central level because nervous changes have a great effect on these systems.

**Anise** was used for the first time in ancient Chinese medicine. A particularly important part of this herb is the anethole, which is found in the essential oil. The extract is useful against problems tied to bad digestion because it improves the digestive process and increases gastric emptying speed. A secondary but still very interesting effect is on headache, sickness and palpitations tied to gastric problems.

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



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

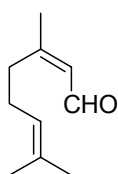


(-)-menthone

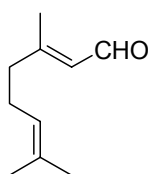
The menthol present in the herb sedates and cures the colon, a very important part of the intestine as regards organism depuration because it contains the intestinal bacterial flora and it re-absorbs water and electrolytes. It has been calculated that the  $DL_{50}$  in menthol is equal to 0.2 mg/kg, 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, together with neral (*cis*-citral), geranial (*trans*-citral) and citronellal derivatives.



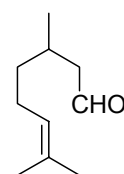
Mint



Neral

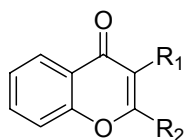


Geranial



Citronellal

Clinical studies showed a positive effect on gastroenteric conditions connected to anxiety or stress. The extract is not harmful if taken over short or long periods. **Licorice** is one of the most important plants in traditional Chinese medicine, where it was used for various types of pathologies. Glicirizine and flavonoids are among its most important components. Glicirizine has an anti-inflammatory action, as well 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 cell membranes.

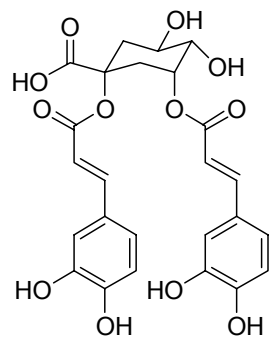


- $R_1=H, R_2=Ph$  Flavone  
 $R_1=OH, R_2=Ph$  Flavonol  
 $R_1=Ph, R_2=H$  Isoflavone  
 $R_1=2H, R_2=H+Ph$  Flavonone

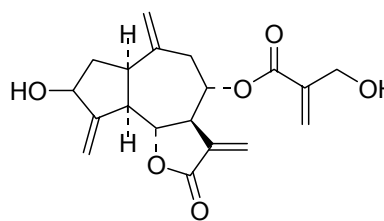
This activity is not only important at a gastric level but also at a hepatic level, enough to support the use of liquorice in cases of hepatitis. The action of **Juniper** is rather broad, acting at the gastric, hepatic and also kidney level. The name **Gentian** seems to come from the king of Illiria Gentius, who was the first to recognise the properties of this herb. Later in time, it was listed by Dioscoride and Pliny among the medicinal plant. Only the root of this plant, which has a strong gastrointestinal activity, is used. Because of its activity it is often considered as a substitute to **Yellow Chinchona** with which it is often combined, as in this formula. **Yellow Chinchona**, in fact, gives a stronger immunostimulant and activating action on the cells of the enteric mucous, easing the organism's elimination reactions.

A good depurator must work well at a hepatic level, because the liver is very important for detoxifying the organism. Four herbs in the preparation help with this: Artichoke, Chinese Rhubarb, Black radish and Dandelion.

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

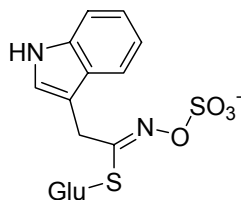


Cinarina



Cinaropicrina

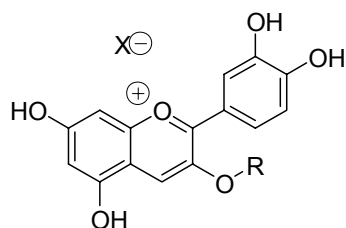
The Artichoke acts mainly as a hepatic depurator, and works in two distinct ways. First, it increases the synthesis of the biliary acids, second it reduces the synthesis of the cholesterol. Its choleric and cholagogic activities make the artichoke a unique stimulant of the hepatic functions: the former favors 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 in any way. Chinese Rhubarb is known both as a cholagogue and a choleric, and it works as a hepatic drainer, just like the artichoke. Chinese Rhubarb is not harmful in therapeutic doses, but care must be taken during pregnancy because some constituents can pass into the mother's milk and so to the baby. Just like the artichoke, the Dandelion also belongs to the Asteracea family but in this case it is



Glucobrassicine

the sesquiterpenics, triterpenics, sterols and inulin lactones that are responsible for its activity. The herb works both at a hepatic and a renal level, where it behaves as a bland diuretic. At a hepatic level, where the main work is carried out, it stabilises the hepatocyte membranes, giving a protective and shielding effect. Finally, Black radish also acts as an excellent hepatobiliary and diuretic. Sulphide glucosinolate compounds, the most important of which is glucobrassicina, are characteristic of this root. As already mentioned, this plant works at a kidney level where it favors the elimination of urates, and at a hepatic level where the biliary secretion of bile is stimulated. This herb is not harmful if taken over long or short periods.

At a kidney level the depurative and detoxifying activities are carried out by six extracts with a widely synergetic activity: European Elder, Uva Ursi, Horsetail, Couch grass, Parsley and Horehound.



Elder Anthiocyanosides

**European Elder** belongs to the Caprifoliacea family, and its flowers are used because they contain anthocyanidine and polyphenols, which increase the total urinary volume. **Uva Ursi** is an Ericacea that likes to grow in siliceous ground. The herb's activity is attributed to the phenolic glucosides, of which the most important is arbutoside, a  $\beta$ -D-

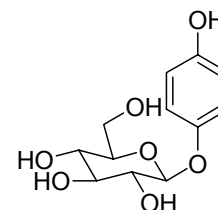
glucopiranosidic derivative of hydroquinol. This molecule hydrolyses to glucose and a diphenol, which in turn oxidises rapidly to quinhydrone, the element which causes the diuretic activity. Uva Ursi is also a good urinary antiseptic. At recommended dosages the herb is not harmful. **Horsetail** is a fundamental element of all diuretic products because it supplies a good quantity of mineral salts, which are needed to replace the excess that is lost with the use of diuretics.

**Couch Grass** is a very important phytotherapeutic. As well as being a very powerful diuretic, it is an efficient hematic, depurator and cholagogue. It is therefore a depurator that acts in various areas, useful also as a hepatoprotector. **Parsley** is a powerful diuretic and depurator, in the past it was also used against gout. Finally, **Horehound** is a Lamiacea which contains marrubiina, a diterpenic lactone, and it was a group of Russian researchers who attributed the diuretic activity of the herb to this lactone.

The last extract present in the product is **Burdock**, the leaf of which contains germacranolide derivatives, namely arctioside. This plant has many virtues, and recent studies confirmed that it is an excellent cutaneous depurator, which makes it ideal for spots and acne. This herb also works because of a choleric component.

### Recommended Use

We recommend taking one or two measures/phials diluted in half a glass of water in the morning on an empty stomach and after main meals.



Arbutoside

**Nutrition Information - per 10ml serving**

Energy: 1.0 Kcal – 4.0 kJ  
Protein: 0.007 g  
Carbohydrate: 0.08 g of which sugars: 0.00 g  
Fat: 0.050 g of which are saturated: 0.00 g  
Fiber: 0.002 g

**Bibliography**

- Hahn FE, Ciak J. Berberine. *Antibiotics* 1976;3:577-88.
- Duke JA. *CRC Handbook of Medicinal Herbs*. Boca Raton, FL: CRC Press, 1985, 256.
- Tyler VE. *Herbs of Choice: The Therapeutic Use of Phytomedicinals*. Binghamton, NY: Pharmaceutical Products Press, 1994, 76-7
- Lust JB. *The Herb Book*. New York: Bantam Books, 1974, 401
- Da Legnano L.: *Le piante medicinali nella cura delle malattie umane*, Ed. Mediterranee.
- Della Loggia R.: *Piante medicinali per infusi e tisane*, Ed. OEMF.
- Pedretti M.. : *L'erborista moderno*, Ed. Erboristeria Domani.
- Various articles from Internet

This product should not be used to replace prescribed medicine.

TECHNICAL SHEET FOR PROFESSIONAL USE ONLY