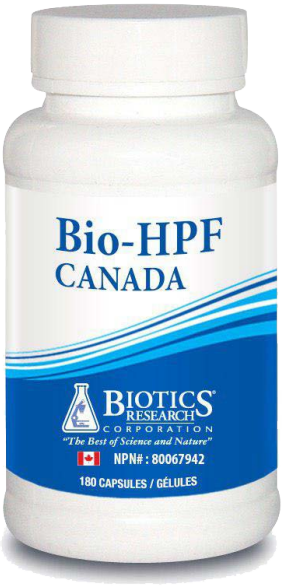
Bio-HPF®



The colonization of the gastric mucosa by non-commensal flora has been associated with diminished gastric health and unwanted health consequences. For example, H. pylori, characterized as a flagellated, curved or S shaped gram-negative rod, is able to penetrated the gastric mucosa and colonize the gastric epithelium. The result may be a persistent infection with possible complications such as dysregulation in the function of the gastric epithelial barrier, as well as increased epithelial permeability. The fact that H. pylori can survive in the hostile acidic environment of the gastric mucosa is thought to be as a consequence of a pH gradient across its cell envelope. It possesses the ability to produce high levels of urease, resulting in the production of ammonia, which results in the formation of a thin acid-neutralizing layer, or "cloud" that is formed around the bacterium, protecting it from destruction by the acidic environment of the gut.

Specific botanicals and botanical components have documented benefits in supporting gastrointestinal health by creating an unfriendly environment for unwanted organisms, and providing support for healthy gastric epithelial function.

Specific, Targeted Nutritional Support for Healthy Gastrointestinal Function

Berberine is the main alkaloid derived from the roots and bark of Berberis vulgaris. The inhibitory effect on microbes is well documented against a wide variety of organisms. Its mechanism of action is thought to result, at least in part to its characteristic structure, that of a planar cationic molecule. This structural arrangement enables it to intercalate the DNA structure.

Wild Indigo *(Baptisia tinctoria)* constituents include glycoproteins, quinolizidine alkaloids, isoflavones, hydroxycumarins and polysaccharides. It is noted for its astringent and immune supportive properties. Traditionally used by North American Indians for its antiseptic properties, it has been associated with the promotion of normal cellular metabolism and the support of healthy tissues.

Licorice *(Glycyrrhiza glabra)* contains numerous active compounds, including flavonoids, triterpene saponins, isoflavonoids and hydroxycoumarins. Glycyrrhizin (GL) has been demonstrated to stimulate interferon gamma production by T-cells, augmenting the activity of natural killer cells. In the human intestinal tract, GL is converted primarily to its biologically active metabolite glycyrrhetinic acid (GA). Researchers suggest that GA may play a role in modulating both the intracellular antioxidant system and mitochondria-induced apoptosis, resulting in cellular protection from ischemic injury.

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Clove *(Syzygium aromaticum)* possesses many active compounds including volatile oils, flavonoids, tannins, triterpines and beta-sitosterol. Eugenol, its main component, has been linked to the protection against lipid peroxidation, and is recognized as a strong scavenger of active oxygen radicals. A number of studies have demonstrated Clove's activity against various bacterial species.

Slippery Elm *(Ulmus fulva)* has been used for centuries by North American Indians for skin irritations. The inner bark has mucilaginous qualities, supporting the health and function of mucus membranes.

Barberry *(Berberis vulgaris)* contains several isoquinoline alkaloids including berberine, berbamine and oxyacanthine. It has been shown to inhibit COX-2 transcription activity in a dose and time dependent manner.

Myrrh *(Commiphora mol-mol)* is a highly valued botanical in Ayurveda. It is used to support digestive function and protect the gastric mucosa. Myrrh has demonstrated a positive effect on mucus production, and has shown to increase nucleic acid production and the concentration of non-protein sulfhydryl compounds, noted for their involvement in maintaining gastroduodenal integrity.

Oregon Grape *(Berberis aquifolium)*: The major components of Berberis are berberine (previously described), beramine and oxyacanthine, along with phytosterin. The actions of Berberis are the promotion of excretion and secretion, supporting digestion and assimilation, and in stimulating the lymphatic system.

Mastic Gum *(Pistacia lentiscus)* has been used for over 2500 years. Modern scientific research has supported writing related to its beneficial actions on supporting gastric health. Mastic gum possesses significant antibacterial activity, which is believed to be due to its components working synergistically. Phytochemical constituents include terpenoids, phenolic compounds, and phytosterols among many others. Mastic has also demonstrated significant antioxidant activity, as well as the ability to inhibit production of pro-inflammatory substances.

Bismuth *(Bismuth Citrate)* is a naturally occurring mineral providing well documented GI supportive activity.

Supplement Facts

Serving Size: 2 Capsules
Servings Per Container: 90

	Amount Per Serving
Proprietary Blend	1,200 mg
Licorice (Glycyrrhiza glabra) (root) (extract)*	
Mastic Gum*	
Slippery Elm (Ulmus rubra) (bark)*	
Myrrh (Commiphora mol-mol) (gum resin)*	
Bismuth Citrate*	
Clove (Syzygium aromaticum) (flower bud)*	
Berberine HCl*	
Anise (Pimpinella anisum) (seed)*	
Barberry (Berberis vulgaris) (bark)*	
Oregon Grape (Mahonia aquifolium) (root)*	
Wild Indigo (Baptisia tinctoria) (root)*	

*** Daily Value not established**

Other ingredients: Capsule shell (gelatin and water) and magnesium stearate (vegetable source).

This product is gluten and dairy free.

RECOMMENDATION: Two (2) capsules two (2) or three (3) times each day as a dietary supplement or as otherwise directed by a healthcare professional.

CAUTION: Not recommended for pregnant or lactating women.

KEEP OUT OF REACH OF CHILDREN
Store in a cool, dry area.
Sealed with an imprinted safety seal for your protection.

Product # 7705 Rev. 11/15

To place your order for **Bio-HPF®** or for additional information please contact us below.

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