A SCIENTIFICALLY DEVELOPED FORMULATION FOR CHRONIC CONSTIPATION



PROVIDING SAFE, EFFECTIVE & LONG LASTING BENEFITS



REGULARISES BOWEL MOVEMENTS RELIEVES CONSTIPATION

PULOLAX GRANULES

A Comprehensive & Natural Laxative with Comfort...

Encourages Gentle Elimination Naturally... Restores Intestinal Motility & Microflora...



Relieves Chronic Constipation Supplements Anthraquinones

Senna & Amaltas significantly relieve chronic constipation by toning the G.I.T. and enhancing Glandular secretions without irritating intestinal mucosa.

Regularises Bowel Movements...

Haritaki, Saunf (Fennel) and its essential oil significantly increase the gastric motility by stimulating the lining of large intestine, resulting in regular bowel movements.

PULVOLAX a balanced formulation giving "Total Relief ...

2 Tones **Digestion...**

Saunf & Gulab act as gastroprotective and carminative, thus tone digestion by restoring motility of G.I.T. and gastric juices secretion to relieve flatulence and indigestion.

Enriched with CARMINATIVE. **ANTI-GRIPE &** DIGESTIVE HERBS.

Increases Stool Bulk....

Ispaghula is a well known bulking agent, which increases stools and apparent wet weight as well as decreases intestinal transit time without irritating bowel.



Acts as Gastro-protective...

Mulethi (Liquorice), Gulab sooth the gastric mucosa & improve absorptionassimilation of food, thereby, guard the gastrointestinal tract and maintain proper digestive juices secretion.

Beneficial in Constipation related conditions...

Pulvolax tones gastrointestinal tract, regularises the function of digestive glands & restores bowel movements thus is highly beneficial in constipation associated problems like Piles, Fissure etc.

Provides Gentle, Dependable, Overnight Relief...

PULVOLAX

Regularises Bowel Movement without Irritating Colon...

ACTS AS A BULKING AGENT

The digestibility of *Plantago ovata* (Ispaghula), a fiber mucilage composed mainly of arabinoxylans, and its fecal bulking effect were studied in healthy volunteers who ingested a low fibre controlled diet plus either placebo or 18 g/day of ispaghula for 15 days period. Fecal wet and dry weights rose significantly during Ispaghula ingestion. Fecal short chain fatty acid concentrations and the molar proportions of propionic

and acetic acids also increased. In conclusion, Ispaghula is more resistant to fermentation than previously reported in humans, and its bulking effect largely results from intact material. (Gut. 35(12), 1747-1752, 1994)

GASTRO-PROTECTIVE ACTIVITY

A fiber mucilage from *Plantago ovata* (Ispaghula) composed mainly of arabinoxylans, and its effects on stool output and caecal metabolism were investigated. Ispaghula increased stool dry weight and apparent wet weight. The molar proportion of short chain fatty acid as propionic acid, increased and fecal pH was reduced. Ispaghula increased both caecal and colonic tissue wet weight and colonic length. Results suggest that Ispaghula is partly fermented in the caecum and colon, and loses its water-holding capacity. However, it is an effective stool bulker and acts mainly by increasing fecal water. (Br. J. Nutr. 68(2), 473-482, 1992)

A GENTLE LAXATIVE

Terminalia chebula (Haritaki) is laxative, astringent & gently improves bowel regularity without excessively irritating colon. The fruits tannins protect the gut wall from irritation and infection and tend to reduce excessive intestinal secretions. Likewise, the fruit helps to counter acidic indigestion and heartburn.

(The Encyclopedia of Med. Plants. DK 273, 1996)

KEEPS STOOLS SOFT

Cassia angustifolia (Senna) has always been specifically used for constipation. It is particularly appropriate when a soft stool is required. Extensive research during the last 50 years has lead to a clear understanding of sennas' action. The sennosides stimulate the lining of the large intestine, causing the muscles to contract strongly, resulting in bowel movement. The sennosides also stop fluid being absorbed from the large intestine, helping to keep the stool soft. (The Encyclopedia of Med. Plants. DK 72, 1996)

EASES DEFECATION



Retarded colonic transit and disturbed defecation are the most prominent patho-physiological

mechanisms in constipation. Both may be influenced by bulking agents and laxatives such as *Cassia angustifolia* (Senna). Gastric emptying, small and large intestinal transit in 24 healthy volunteers were measured under normal conditions. The study showed that senna increased stool weight significantly. (Pharmacology 47(1), 242-248, 1993)

PROTECTS GASTRIC MUCOSA

Glycyrrhiza glabra (Mulethi) is useful as a gentle laxative. Mulethi as a whole restores stomach secretion and also produces a thick protective mucus for the lining of the stomach, making it a useful remedy in inflammatory stomach conditions. (The Encyclopedia of Med. Plants. DK 99, 1996)

CARMINATIVE SPASMOLYTIC DIGESTIVE SOOTHING

GULAB (Rosa centifolia)

Noses have been used as medicinal plants since antiquity, On the digestive system, rose has a strengthening and detoxifying effect. Its anti-septic & anti-inflammatory properties can be used to treat gastroenteritis and gastric ulcers. It can also relieve from feelings of nausea and help to regenerate damaged intestinal walls as well as being a mild aperient, it is useful in the treatment of Chronic Constipation. It also has a soothing effect on the Liver and Gall Bladder. (Natural health care, 197, 2000)

Increases Stool Bulk with Gastroprotective Activity...

Helps Regularise Digestion & Metabolism...

PULVOLAX X

A Fast Acting Remedy for Chronic Constipation...

PULVOLAX is a comprehensive polyherbal formula in optimal concentration of different vital herbs to exert Laxative, Bowel Regularising, Stool Bulking, GIT toning, Gastroprotective activities & simultaneously tone digestion to combat Chronic Constipation and other associated conditions.



NORMALISES INTESTINAL TRANSIT TIME

The lack of fiber in the diet may contribute to the development of several diseases including gastrointestinal disorders. The clinical effects of Plantago ovata (Ispaghula) and Cassia angustifolia (Senna) were studied in 100 patients of both sexes, aged from 40 to 60 years. Everyone complained delay of different degree of abnormal intestinal transit time or chronic constipation. The patients were treated with a daily dose of 2 teaspoonful every evening. In the majority of the subjects, a good clinical response was obtained; 88% of the patients presented a normalization of the gastrointestinal transit time; further the drug was well tolerated by 86% of the patients. In conclusion, a good efficacy and tolerability is observed; thus its use is recommended in those disorders characterized by slow intestinal transit time and/or constipation. (Acta Biomed Ateneo Parmense 57 (5-6), 179-186, 1986)

A LAXATIVE WITH COMFORT

Study was conducted for the effects of *Cassia sps.* (Amaltas) extracts on intestinal motility. The results showed that the plant stimulates intestinal contractions with dose-dependent relation. Moreover, Cassia sps. contractile activity was comparable to the acetylcholine and was inhibited by atropine. According to these results, Cassia sps. purgative activity is supported at least, by its stimulating effect on intestinal motility.

(Dakar Med. 39(2) 125-8, 1994)

Cassia sps. (Amaltas) is a medicinal plant. It has been claimed to be effective as a laxative. The studies done so far have shown no toxicity as a result of consuming Cassia sps. The plant has been found to contain anthraquinones, known to be the active ingredient providing the laxative effect.

(J. Med. Assoc Thai 73 (4), 217-222, 1990)



Foeniculum vulgare of (Fennel) is primarily a 'moving' or unblocking oil and its main action is on the digestive system. A carminative and digestive stimulant, fennel will relieve flatulence and digestive spasms. When food is not carried through digestive system, putrefaction occurs and gas will form; fennel is one of the main oils to encourage food to be digested properly and expel gases. Thus, action of fennel is more on the lower digestive processes and bowels. Hence, it is used to relieve constipation. (Neal's Yard Remedies, Natural Health & Body Care 2000;181)

INCREASES BULK TO THE FECES

The effect of *Plantago ovata* (Ispaghula) on patients with chronic constipation (CC) with or without irritable bowel syndrome (IBS) has been assessed by a double blind study comprising 20 patients with CC of which 10 had associated IBS. A clinical questionnaire, weight of feces and intestinal transit time measurement with radio-opaque markers were done. Fecal weight and colonic transit time were not significantly modified in placebo patients, while weight increase was observed in the treated ones as well as a decrease in transit time. No adverse effects and particularly no flatulence were observed as often seen in patients on herbs. (Rev Esp Enferm Dig., 82 (1), 17-22, 1992)

POTENTIATES THE LAXATIVE ACTIVITY

Two aloe-emodin dianthrone diglucosides (I and II) were isolated from the leaves of *Cassia angustifolia* (Senna) by successive column chromatography. This is the first report of isolation of diglucoside I from senna. Diglucoside I exerts a potentiating effect of about I.3 times on the purgative activity of sennoside A, the key active component in Senna. (J.Pharm Pharmacol. 37(10), 703-706, 1985)

RESTORES GASTRO-INTESTINAL MOTILITY

The proteins isolated from **Senna extract** (SE) were pharmacologically evaluated for it's molecular action on gastro-intestinal motility. It was demonstrated that gastric administration of SE enhanced gastric evacuation and gastrointestinal transferring function. After gastric administration of SE, light microscopic examination revealed no apparent change in gastrointestinal mucosal tissues. The study concluded that Senna extract (SE) enhances gastrointestinal motility through

Eases Digestive Discomfort, Relieving Flatulence...

PULVOLAX GRANULES

INDICATIONS

- Chronic Constipation
- Irregular Bowel Habits
- Digestive Disturbance
- Indigestion Gastritis
- In Constipation Associated conditions like Piles, Fissures and Fistula.

DOSAGE:

Adult :1-2 teaspoonful at bed time. Children : ½-1 teaspoonful at bed time. Preferably with lukewarm water or milk or as directed by the Physician.

EXCLUSIVE BENEFITS:

- Encourages gentle elimination naturally, without chemical stimulants.
- Enriched with Carminative, Anti-gripe and Digestive herbs.
- Non-allergenic therapeutic fiber combination from natural source.
- Restores and maintains bowel regularity.

