

COMPOSITION

Each **Ispergul**® sachet contains *Plantago ovata* husk 3.50 gm. Each **Ispergul**® container contains *Plantago ovata* husk 120 gm.

DESCRIPTION

The husk and seed of *Plantago ovata* is commonly known as psyllium or Ispaghula. Psyllium is widely used as a fiber supplement for the treatment of constipation. Psyllium husk is obtained by milling the seed of *P. ovata*.

ACTIVE CONSTITUENTS

Psyllium is classified as a mucilaginous fiber due to its powerful ability to form a gel in water. This ability comes from its role as the endosperm of the *P. ovata* seed, where it's function to retain water in order to prevent the seed from drying out. Psyllium husk contains —

High proportion of hemicellulose

Arabinose

Rhamnose

Galacturonic acid units (arabinoxylans)

35% soluble and 65% insoluble polysaccharides

MECHANISM OF ACTION

Most of the psyllium reach the caecum four hours after ingestion in an intact and highly polymerized form. Psyllium husk significantly increases the level of stool moisture, as well as wet and dry stool weight and shorten gastrointestinal transit time. Anaerobic fermentation of the soluble non-starch polysaccharides from psyllium seed results in the production of short-chain fatty acids, acetate, propionate and butyrate in the intestine. Butyric acid is the preferred oxidative substrate for colonocytes and may be helpful in the treatment of ulcerative colitis. Psyllium also has hypocholesterolemic effects. It is assumed that psyllium increases the activity of cholesterol alpha-hydroxylase, HMG-CoA reductase and fractional turnover of both chenodeoxycholic and cholic acids. As a result it decreases cholesterol absorption and lowers LDL cholesterol.

INDICATION AND USES

Ispergul[®] is a bulk forming laxative. It is indicated in constipation, hemorrhoids and ulcerative colitis. It also reduces hyperlipidemia, postprandial diabetes mellitus & IBS.

DOSAGE AND ADMINISTRATION

Adult: 3.5 gm (1 sachet or 1 tea spoonful powder) 2 to 3 times daily with a glass of water.

Children (6 to 12 year of age): 2 gm to 3.5 gm ($\frac{1}{2}$ to 1 Sachet or tea spoonful powder) 2 to 3 times daily with a glass of water.

The daily dosage ranges from 12 to 40 gm. The powder products should be administered as 1 teaspoonful (3.5 gm to 6.0 gm) in 150 ml cool water or fruit juice and to be stirred or shook for 5 to 10 second. The dose should be taken 30 to 60 minutes before or after taking other medication.

ADVERSE REACTIONS AND PRECAUTION

Incorrect administration procedure (with too little fluid) can cause the product to swell and lead to obstruction of the esophagus or intestine, particularly with older people. Patients with exocrine pancreatic insufficiency should avoid use of Psyllium due to its inhibitory actions on pancreatic lipase.

CONTRAINDICATIONS

Psyllium is contraindicated in patients who have pathological narrowing in the GIT, intestinal obstruction, faecal impaction, difficulty swallowing or esophageal narrowing or difficulties in regulating diabetes mellitus.

DRUG INTERACTION

Concurrent use of licorice, laxatives and antidiabetic agents may result in increased risk of hypokalemia and hypoglycemia. Carbamazepine bio-availability may reduce during concomitant administration of psyllium seed.

USE IN PREGNANCY AND LACTATION

No adverse effects of **Ispergul**® have been reported.

STORAGE

Store in cool & dry place away from direct sunlight. Keep the medicine out of reach of children.

HOW SUPPLIED

 $\textbf{Ispergul}^{\circledcirc} \ \, \textbf{Each inner carton contains 15 sachets \& HDPE container contains 120 gm powder.}$



Manufactured by:

SQUARE HERBAL & NUTRACEUTICALS LTD.

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