

Psyllium the Hidden Superfood of all Times **Sukaina Shabbir***

Abstract

Humankind has used Psyllium since ancient times; it has miraculous medicinal properties and health benefits that have been attributed to it throughout the ages. Psyllium is also recognized by few other names like ispaghula, isabgol, psyllium seed husks etc. It is usually cultivated in India and Pakistan. Psyllium is derived from the husks of the *Plantago ovata* plant's seeds. There are various health benefits of consuming psyllium. Its positive effects include relieving the symptoms of constipation as well as mild diarrhea, it improves digestion and cleanse colon, lower hypercholesterolemia, reduces the chances of heart diseases, helps in weight reduction, controls type 2 diabetes, treats inflammatory bowel disease (ulcerative colitis) and hemorrhoids. In food industry it is used in baking as well as a thickening agent in the preparation of ice cream or frozen dessert. In older days it was also applied topically to treat skin problems and insect stings.

Keywords: Psyllium husk; Constipation; Gastro esophageal reflux disease (GERD); Diabetes; Cholesterol

Faculty of Nutritional Sciences,
Department of School of Public Health,
Dow University of Health Sciences
(DUHS), Karachi, Pakistan

***Corresponding author:**
Sukaina Shabbir

✉ sukainashabbir@gmail.com

Faculty of Nutritional Sciences, Department
of School of Public Health, Dow University
of Health Sciences (DUHS), Karachi,
Pakistan.

Tel: +92 21 99215754

Received: November 20, 2018; **Accepted:** April 13, 2019; **Published:** April 22, 2019

Citation: Shabbir S (2019) Psyllium
the Hidden Superfood of all Times. J
Nutraceuticals Food Sci Vol.4 No.1:2

Introduction

Humankind has used Psyllium since ancient times; it has miraculous medicinal properties and health benefits that have been attributed to it throughout the ages. Psyllium is also recognized by few other names like ispaghula, isabgol, psyllium seed husks etc. It is usually cultivated in India and Pakistan.

Psyllium is derived from the husks of the *Plantago ovata* plant's seeds. There are various health benefits of consuming psyllium. Its positive effects include relieving the symptoms of constipation as well as mild diarrhea, it improves digestion and cleanse colon, lower hypercholesterolemia, reduces the chances of heart diseases, helps in weight reduction, controls type 2 diabetes, treats inflammatory bowel disease (ulcerative colitis) and hemorrhoids. In food industry it is used in baking as well as a thickening agent in the preparation of ice cream or frozen dessert. In older days it was also applied topically to treat skin problems and insect stings [1].

Nutrition facts regarding psyllium

Psyllium husk is low in calories, 1 table spoon has only 20 calories and no cholesterol or trans-fat. It has 0.2 gram of protein and very low sodium. It is rich in soluble dietary fiber and 1 table spoon of psyllium has 5 gm. of dietary fiber and this fiber content is primarily responsible for all the benefits psyllium brings to us. Increased soluble fibers intake such as β -glucan or psyllium are

known to have strong evidence for lowering elevated blood lipids to normal healthy levels which leads to reduced coronary heart disease risk [2].

Discussion

Benefits of psyllium husk

There are innumerable health benefits of consuming psyllium husk. But foremost thing which should be considered is that sufficient amount of water should be taken along with psyllium in order to achieve all its positive effects as it absorbs water and become a thick viscous compound which is beneficial in preventing and curing various diseases.

Psyllium as a constipation reliever: Since constipation is the condition in which emptying the bowel becomes very painful, there are few functional food like psyllium that has a laxative effect. Water absorbed by psyllium husk is not absorbed by the intestine resulting in making stools softer and bulkier leading to a smooth defecation process [3]. When patients with Type 2 Diabetes who had chronic constipation were administered with psyllium supplementation had overall positive health benefits including decreased constipation symptoms, body weight, glycemic, cholesterol, and increased HDL Cholesterol levels [4].

Hemorrhoids and psyllium: In hemorrhoids veins in the walls

of the anus or rectum are dilated, which is usually caused by untreated constipation but sometimes associated with chronic diarrhea. Adequate fiber supplement combined with the TONE method can stop the progression of hemorrhoids and bleeding, and preventing surgery in most patients with advanced haemorrhoids [5].

GERD and psyllium: Gastro esophageal reflux disease, or GERD, is a digestive disorder that affects the lower esophageal sphincter (LES). It has been shown that frequency of symptoms in patients who suffer periodically from Gastro esophageal reflux disease (GERD) with constipation was reduced by the intake of psyllium as compared with omeprazole [6].

Hypocholesterolemic agent: Hypercholesterolemia can increase the risk of heart diseases and other comorbid. Psyllium husk is a natural, serum cholesterol lowering agent as it binds with bile acids in the small intestine and ultimately reduces the absorption of cholesterol [7]. Studies have proved that psyllium fiber supplement is even higher in quality to wheat dextrin for decreasing both low density lipoprotein cholesterol and total cholesterol without having impact on high density lipoprotein cholesterol thus decreasing the risk of coronary vascular disease [8,9].

Diabetes and psyllium: Psyllium is a soluble fiber which forms gel in the intestine which leads to slowing the rate of nutrient absorption and results in lowering postprandial blood glucose level. Diabetic patients are usually advised to modify carbohydrate intake, but it has been observed that patients with type 2 diabetes if consume moderate carbohydrate diet

supplemented with psyllium has better effects on plasma insulin and pro-inflammatory cytokines [10]. Improvement in the metabolic syndrome (MetS) profile of newly diagnosed type 2 diabetic patients was observed when psyllium was consumed in combination to the normal diet [11].

Hypertension and psyllium: Psyllium, soluble fiber is part of a healthy diet and exerts a protective effect in normalizing the blood pressure. Observational studies show that when fiber is increased in diet (by 7–15 g/day above the usual levels) is significantly associated with reduced blood pressure and hypertension risk compared to the low fiber intake in Western diets [12]. Consumption of soluble fiber is proved to reduce overall Systolic Blood Pressure (SBP) and diastolic blood pressure (DBP) in all populations, and especially psyllium fiber helps to reduce overall SBP [13,14].

Conclusion

In conclusion there are many hidden benefits of Psyllium husk. If taken in an appropriate amount according to RDA it can be a part of our regular diet. Few things should be considered while consuming psyllium. First of all water intake should be increased, in order to take full advantage and secondly it is sometimes observed that supplements of psyllium can have side effect like stomach cramps, bloating or flatulence and even allergic reactions, if any of the condition happens one should seek for medical assistance Increased fiber intake is consistently associated with better health, reduced chronic disease risk, and healthy aging even when initiated in mid-life (ages 45–65 years).

References

- Madgulkar AR, Rao MR, Warriar D (2014) Characterization of Psyllium (*Plantago ovata*) polysaccharide and its uses. Polysaccharides pp: 1-17.
- Dreher ML (2018) Fiber and coronary heart disease. In Dietary Fiber in Health and Disease, Humana Press pp: 273-289.
- Garg P (2017) Psyllium husk should be taken at higher dose with sufficient water to maximize its efficacy. J Acad Nutr Diet 117: 681.
- Noureddin S, Mohsen J, Payman A (2018) Effects of psyllium vs. placebo on constipation, weight, glycemia, and lipids: A randomized trial in patients with type 2 diabetes and chronic constipation. Complement Ther Med 40: 1-7.
- Garg P, Singh P (2017) Adequate dietary fiber supplement and TONE can help avoid surgery in most patients with advanced hemorrhoids. Minerva Gastroenterologica E Dietologica 63: 92-96.
- Hosseini M, Salari R, Akbari-Rad M, Salehi M, Birjandi B, et al. (2018) Comparing the effect of psyllium seed on gastroesophageal reflux disease with oral omeprazole in patients with functional constipation. J Evid Based Integr Med 23: 1.
- Xing LC, Santhi D, Shar AG, Saeed M, Arain MA, et al. (2017) Psyllium husk (*Plantago ovata*) as a potent hypocholesterolemic agent in animal, human and poultry. Int J Pharmacol 13: 690-697.
- McRorie M, Johnson W Jr, Gibb RD, Womack JB, Pambianco DJ (2017) Psyllium is superior to wheat dextrin for lowering elevated serum cholesterol. Nutrition Today 52: 289–294.
- Hastings CW, Barnes DJ, Kubel SC (2017) U.S. Patent No. 9,579,356. Washington, DC: U.S. Patent and Trademark Office.
- Ghalandari H, Kamalpour M, Alimadadi A, Nasrollahzadeh J (2018) Comparison of two calorie-reduced diets of different carbohydrate and fiber contents and a simple dietary advice aimed to modify carbohydrate intake on glycemic control and inflammatory markers in type 2 diabetes: A randomized trial. Int J Endocrinol Metab p: 16.
- Abutair AS, Naser IA, Hamed AT (2018) The effect of soluble fiber supplementation on metabolic syndrome profile among newly diagnosed type 2 diabetes patients. Clinical Nutrition Research 7(1): 31-39.
- Dreher ML (2018) Fiber and hypertension. In Dietary Fiber in Health and Disease pp: 291-303.
- Khan K, Jovanovski E, Ho HVT, Marques ACR, Zurbau A, et al. (2018) The effect of viscous soluble fiber on blood pressure: A systematic review and meta-analysis of randomized controlled trials. Nutr Metab Cardiovasc Dis 28: 3-13.
- Dreher ML (2018) Overview of the health benefits of adequate fiber intake. In Dietary Fiber in Health and Disease pp: 19-40.