### NUTRITION

**D**ESPITE the fact that *methi* is one of the oldest medicinal herbs, ongoing research in India and abroad is currently uncovering new possibilities for its potential role in the treatment of diabetes and high cholesterol levels associated with coronary heart disease, both of which plague many industrial societies.

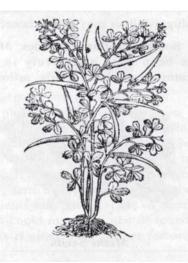
Methi has been used as both a food and a medicine in many different cultures, but especially in Asia and the Mediterranean region. The medicinal value of its seeds is mentioned in Ayurvedic texts as well as in Greek and Latin pharmacopoeia. The Ayurvedic texts praise this herb for its power as an aphrodisiac, but modern vaidyas seem to be using it more for digestive and respiratory problems stemming from an excess of kaph (phlegm) and vat (wind). In ancient Egypt, *methi* was used to ease childbirth and to increase milk flow, and modern Egyptian women are still using it today to relieve menstrual cramps, as well as making hilba tea out of it to ease other kinds of abdominal pain. The Chinese call it hu lu ba, and also use it for treating abdominal pain.

Though this cool season crop is grown in most corners of the world, its uses and people's awareness of its value vary considerably. The average Westerner is not likely to be able to identify it, nor have any idea what it is good for (unless one happens to be a good cook or a herbalist), yet in India, fresh methi ka saag (the stems and leaves of the plant) is very commonly cooked as a winter vegetable, and the seeds are used year round as a flavouring agent for various dishes. The seeds are also eaten raw as sprouts and used medicinally. In Egypt and Ethiopia, *methi* is used in baking bread, and the Swiss use it for flavouring cheese. In the USA, it is mainly used to make spice blends for soups and stews.

# The Many Uses of Methi

English name: Fenugreek Botanical name: Trigonella Foenum-graecum

### **Paige Passano**



Ancient Egyptian recipe for fenugreek ointment, c. 1500 BC

The leaves of *methi* are highly alkaline, and rich in iron, calcium, sulphur, chlorine, and vitamins A and C. They are aromatic and bitter tasting, with as much protein as most pulses, so they make an excellent inexpensive substitute for other sources of protein. The seeds however, have much more medicinal value due to the bitter fatty oil resin, mucilage, protein and fiber that they contain. The seeds are odd looking vellowish-brown, almost square, and they emit a peculiar odour. When soaked in water overnight, these tiny rocklike seeds swell slightly and become mucilageous. Eating the seeds plain or making methi tea out of them

has a softening and soothing effect on the skin and all mucous membranes, especially for inflamed areas. Their chemical makeup is similar to cod liver oil, and according to Dr P. Blum, can be used effectively in treating anaemia, arthritis, gout (inflammation of the smaller joints, such as the toes) and diabetes<sup>1</sup>. The seeds are also ground into *methi* powder, which may be more convenient for those taking larger quantities, as it can be easily gulped with water or mixed into chappatis or other foods. Dosages depend on the form it is taken in, but after consulting several doctors, the general recommendation is 1-2 grams daily of powdered seeds, or 50-100 grams of sprouts. The incorporation of methi into one's diet may be useful in the following conditions:

As a solvent of excess mucous: The chemical makeup of *methi* seeds gives them the power to dissolve sticky substances such as body mucous, an overabundance of which can lead to numerous problems. Respiratory trouble will occur if there is excessive mucous in the throat, lungs, or other air passages. A deadened sense of taste or smell is also likely to be a result of mucous built up over a long period of time. Taste is diminished when a blockage of mucous and accumulated juices lead to swelling in the mucous membranes, causing a

malfunctioning of the salivary glands. Similarly, the sense of smell can be affected when accumulated mucous obstructs the olfactory nerves.<sup>2</sup> Regular use of *methi* may help in both of these conditions but like other natural medicines, Kaviraj Dr Khazanchand, president of the Board of Ayurvedic and Unani Systems of Medicine from 1962-1985. emphasises the importance of allowing sufficient time for the methi to take effect: "It really depends on both the person's constitution and the type of illness they have. Some will have a speedy response, such as two weeks, while others need extended use, maybe three to four months, to see any noticeable results. These days, people expect immediate results. There is no patience."

Similar to the problem of diminished sense of taste or smell, bad breath and body odours emanate from body orifices if there is hardened mucous or other toxic substances in the nasal and oral passages, gastrointestinal tract, urinary tract, bloodstream or vagina. H.K. Bakhru claims that *methi* tea taken on a regular basis will remove these accumulations much more thoroughly than soap or mouthwash can do. Lelord Kordel, in his book, *Health the Easy Way*, also describes this cleansing action of *methi*:

"So potent are the volatile oils in fenugreek and so thorough a job of cleansing do they perform, that often a decided fragrance of fenugreek seeds emanates from the body pores of a person using the herb regularly. These oils seek out and penetrate the most remote crevices and creases of the membranous linings within the body cavities. The volatile oils are absorbed into the cell tissues to do their job of rejuvenating our body. Some of them find their way into the sweat glands to cleanse and awaken any sluggishness in these parts.

**Relieving Digestive Disorders:** In India, it is common knowledge that *methi* promotes good digestion. The main reasons for this is the high fiber content (51.7 percent), which acts as a scrub brush on the digestive tract. Indigestion, flatulence, diarrhoea, dysentery, peptic ulcers and colic are all complaints that may be relieved with the use of *methi*. In addition, people who suffer from biliousness or a sluggish liver may derive benefit.

**Soothing inflamed tissues**: *Methi* has been used effectively in the treatment of ulcers, boils, arthritis,



Methi Seeds

sinusitis (an inflammation of the mucuous membranes of the nasal passages) and sore throat. For external use, such as in the treatment of burns or boils, a poultice made from the leaves can be applied. The seeds or the leaves can be eaten to soothe internal inflammation or swelling. To relieve a sore throat, a strong *methi* brew can be prepared by simmering two tablespoons of the seeds in a quart of cold water for a half hour. After allowing it to cool, strain it and use the entire quantity as a gargle.<sup>3</sup>

**Prevention/treatment** of Anaemia: In adolescent girls, the sudden onset of puberty along with a growth spurt can make them susceptible to anemia. Incorporating cooked *methi ka saag* into the diet at this stage is one way to prevent this. The iron-rich seeds will also benefit anyone suffering from anaemia.

Pregnancy/Lactation/ Menstruation: Methi has been found to increase the flow of milk in nursing mothers.<sup>4</sup> The seeds are generally eaten as a gruel to achieve this result. According to Bakhru, if a woman takes small daily doses of methi after the birth of a child, this can also help in quick normalisation after delivery. He suggests frying the seeds in ghee and blending them into a paste, adding flour and sugar to make halwa. Since *methi* is a uterine stimulant, some western herbalists advocate its use during prolonged labour, but suggest avoiding its use during pregnancy.<sup>5</sup> Ayurvedic texts also discourage taking methi during pregnancy, but report that the herb's effect on the uterus makes it helpful in a wide range of menstrual disorders, including absence of blood, irregularity, or painful menstruation.

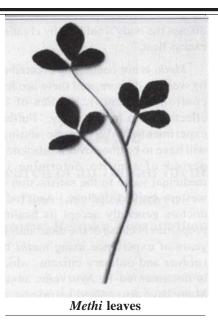
**Diabetes and High Cholesterol:** Recent research conducted in Hyderabad has revealed that methi seeds have hypoglycaemic properties and can be used in the management of diabetes. Dr R.D. Sharma, T.C. Raghuram and N. Sudhakar Rao reported successful results on a study of Type 1 (insulin-dependent) diabetic patients, who were given a controlled diet of 1200-2400 calories daily. Two control groups were formed, the only difference being that one group had 100 grams of defatted powder of methi seeds mixed into their food. The results were quite dramatic:

The fenugreek diet significantly reduced fasting blood sugar and improved the glucose tolerance test. There was a 54 percent reduction in 24 hours of urinary glucose excretion. Serum total cholesterol, LDL [lowdensity lipoproteins] and VLDL [very low-density lipoproteins] cholesterol and triglycerides were also significantly reduced. The HDL [high-density lipoprotein] cholesterol fraction, however, remained unchanged.<sup>6</sup>

It is believed by these researchers that methi acts as an anti-diabetic agent in two ways. It improves the body's sensitivity to insulin, while the high fiber content of the seeds delay the absorption of glucose from the intestines. As a result of these studies. the Director of the National Institute of Nutrition in Hyderabad recommends 50-100 grams of methi seeds daily as an effective supportive therapy for Type 1 diabetics. However, because of the seriousness of this disease, one should always seek professional advice before using methi as a hypoglycaemic, particularly for determination of the appropriate dosage.

Though this particular study was limited to Type 1 diabetics, earlier studies have found *methi* to have beneficial effects on Type 2 diabetics as well.<sup>7</sup> In India, where many diabetics live with a dangerously high level of blood sugar due to inaccessibility of expensive drugs like insulin, this research has great practical significance since *methi* is inexpensive and commonly used in cooking by all socio-economic groups. *Methi*'s high protein content (28 percent) and fiber are added advantages in terms of food value.

Not all specialists are in agreement over the value of *methi* as an herbal drug. Dr Ranjit Roy Chaudhary of the National Institute of Immunology finds the Hyderabad research interesting, but not definitive enough to consider marketing *methi* as a drug. He claims that it is simply *methi*'s high fiber content, much like other high fiber foods, that may be helpful in the



treatment of mild diabetes. He emphasises the importance of consulting a physician before using it medicinally: "Some research has been carried out that suggests *methi* may lose its effectiveness when taken on a long-term basis. If this is true, diabetic patients may feel a sense of security that could turn out to be ill-founded. This is an area for further research." In Dr Roy Chaudhary's opinion, the most interesting area of future research will be to determine whether using *methi* as a food will enable diabetics to reduce the dosage level of allopathic drugs. Tolbutamide is a commonly used oral anti-diabetic which can result in liver damage and insulin has led to allergic reactions and other serious side effects because of the large quantities required to control blood sugar levels. If taking methi along with lowered dosages of these drugs can achieve the same effect, not only will the side effects of these powerful drugs be reduced, but the cost of treatment will decrease.

In the treatment of patients with high cholesterol, there is currently one Indian company from Indore that has begun producing a herbal drug called Syndrex. One capsule contains nothing but 500 mg of pure extract of sprouted *methi*. According to Dr R.L. Passi, it is too soon to come to any substantial conclusions on the effects of this particular medicine, because it has so recently been introduced, but he has experienced surprisingly good



Methi seller

results with it in the treatment of four patients with high cholesterol. In each of the four individuals, Dr Passi witnessed a dramatic drop in the first month of triglycerides and LDL, while the protective form of cholesterol, the HDL, remained the same. After the first month, the progress leveled off, either remaining stable or continuing to decrease slowly. The longest any of his patients have been on Syndrex is one year, and though this patient has not yet tested normal for cholesterol, close monitoring has revealed quite a substantial improvement. There are no known side effects of this medicine, probably because it is nothing more than a higher concentration of the sprouted seeds. However, Kaviraj Dr Khazanchand warns against taking excessive amounts (over five grams per day) of methi because "any food in an excessive dose acts as a poison in the body. Too much of it could disrupt the body's balance by creating excess heat."

Methi is not commonly prescribed by western doctors, and there are few controlled scientific studies of its effects on the human body. Further experimentation in diverse settings will have to be done over a substantial period of time to determine its medicinal value to the satisfaction of western-trained doctors. Ayurvedic doctors generally accept its healing properties because of the thousands of years of experience using *methi* by vaidyas and ordinary citizens, which is documented in Ayurvedic texts. Many have also gained knowledge of its usefulness by practical applications with their own patients.

The experience these various doctors report, along with the lack of any known harmful side effects, make it worth experimenting with either as a nutritionally sound food, or as an alternative/complement to allopathic medicines.

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- 7. ibid



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