# FENNEL SEEDS -HEALTH BENEFITS

CH. ANUSHA<sup>1</sup>, DR.T. KAMALAJA<sup>2</sup>,

G. SAIBHAVANI<sup>3</sup>

<sup>1</sup>M.Sc Foods and Nutrition, PGRC, PJTSAU, Rajendranagar, Hyderabad.

<sup>2</sup>Senior Scientist, AICRP- H.Sc, Department of Foods and Nutrition, PGRC, PJTSAU, Rajendranagar, Hyderabad.

<sup>3</sup>Research Scholar, M.Sc Foods and Nutrition, AICRP- H.Sc, PGRC, PJTSAU, Rajendranagar, Hyderabad

## INTRODUCTION: CULTIVATION:

Fennel (*Foeniculum vulgare*) is a perennial, aromatic medicinal herb belonging to Apiaceae family. Originally indigenous to the border of Mediterranean region and in European countries, now which has been naturalized and cultivated across the world as a spice, medicinal or essential oil plant. The fruits referred as seeds are ridged, aromatic and oblong or ellipsoid shape quite useful for relieving various aliments from congestion to asthma and diabetes.

Sweet fennel and bitter fennel are the two varieties which are commercially available and mostly used. Sweet fennels are used as flavouring agents in many foods due to unique characteristics and its odour. Fennel is grown all over India and is cultivated as Rabi crop. The major producing states are: Andhra Pradesh, Rajasthan, Telangana, Punjab, Madhya Pradesh, Uttar Pradesh, Gujarat, Karnataka and Haryana.

All soils which are rich in organic matter are suitable for cultivation of fennel. Best results will be from drained loamy soil or black or sandy soil which is rich in organic matter and requires 15- 25°C temperature with rainfall 50-75 mm cool and dry climate during the seed set increases seed yield and also the quality.

## MAIN COMPONENTS OF FENNEL SEEDS:

All parts of the fennel plant are rich in powerful antioxidants like chlorogenic acid, quercetin which have health benefits and phytonutrients. The major constituent of fennel is anethole, it also containsestragole, fenchone, limonene. Therefore, due to the presence of these components the essential oil from fennel shows a good DPPH radical scavenging activity and also inhibits peroxidation. Fennel seed extracts also contain saponins, flavonoids, cardiac glycosides, sterols, volatile oils, trace elements, vitamins and some minerals which shows good antioxidant potential.

### NUTRITIONAL Information:

Nutrients found in dried fennel seeds

Composition	Quantity (Per 100g)
Proximates	
Moisture	90.21g
Energy	31kcal
Protein	1.24g
Fat	0.2g
Carbohydrate	7.3g
Total Dietary Fiber	3.1g
Sugars	3.93g
Minerals	
Calcium	49mg
Iron	0.73mg
Magnesium	17mg
Phosphorous	50mg
Potassium	414mg
Sodium	52mg
Zinc	0.2mg
Vitamins	
Vitamin C	12mg
Vitamin B1	0.01mg
Vitamin B2	0.032mg
Vitamin B3	0.64mg
Vitamin B6	0.047mg
Folate	27μg
Vitamin A	48μg
Vitamin E	0.58mg
Vitamin K	62.8µg
Lipids	
Total Saturated Fatty	0.09g
acids	
Total	0.068g
Monounsaturated	
Fatty acids	0.160
Total Polyunsaturated Fatty acids	0.169g



## **HEALTH BENEFITS OF FENNEL:**

#### 1. Improves digestive health:

Essential oils in these seeds stimulates the secretion of the digestive enzymes and juices that aids in digestion. As these fennel seeds contain anethole, fenchone and estragole acts as anti-inflammatory and antispasmodic which are good for indigestion, bloating and constipation.

#### 2. Eliminates bad breath:

Aromatic essential oil of these seeds has antibacterial properties which help to freshen breath. The sweet fennel seeds increase secretion of saliva which kills bacteria.

#### 3. Promotes lactation:

Fennel seeds show galactogenic properties, which means it helps to increase milk secretion and blood level of prolactin due to the presence of anethole.

#### 4. Cancer fighting properties:

Powerful compounds in the fennel may help protection against chronic diseases like certain cancer. Anethole one of the main active compound in fennel seeds has been found to exhibit cancer fighting property.

#### 5. Benefits heart health:

Fennel seedscontain fiber, potassium, magnesium and calcium all of which plays key role in maintaining heart health.

#### 6. Regulates blood pressure and purify blood:

As these seeds contains essential oils and fiber useful in flushing out toxin compounds from our bodies and helps in cleansing. Also, these are rich in potassium helps in controlling heart rate and blood pressure.

#### 7. Reduce water retention:

Fennel tea works as diuretic by flushing out excess fluids and reducing the risk of urinary tract problems. It also possess diaphoretic property which stimulates perspiration.



## OTHER BENEFITS:

These seeds also helps in relieving menstrual cramps, reduces the asthma symptoms, boosts metabolic rate, enhances liver health, aids in treating hernia, boosts fertility, aid in weight loss, enhances sleep quality, helps in treating candida, treats acne, improves skin appearance, improves hair health, boost immune system, lowers the cholesterol level, aids in detoxification of the body, aid in treating edema and many other.

## **CONCLUSION:**

Fennel seeds which are tiny are valued for pleasant aroma, abundant nutritional and medical properties. Adding a table spoon of fennel seeds daily to your diet may reduces several problems. Although eating fennel seeds is likely safe, consuming higher dosage in supplement form might react with certain medications.