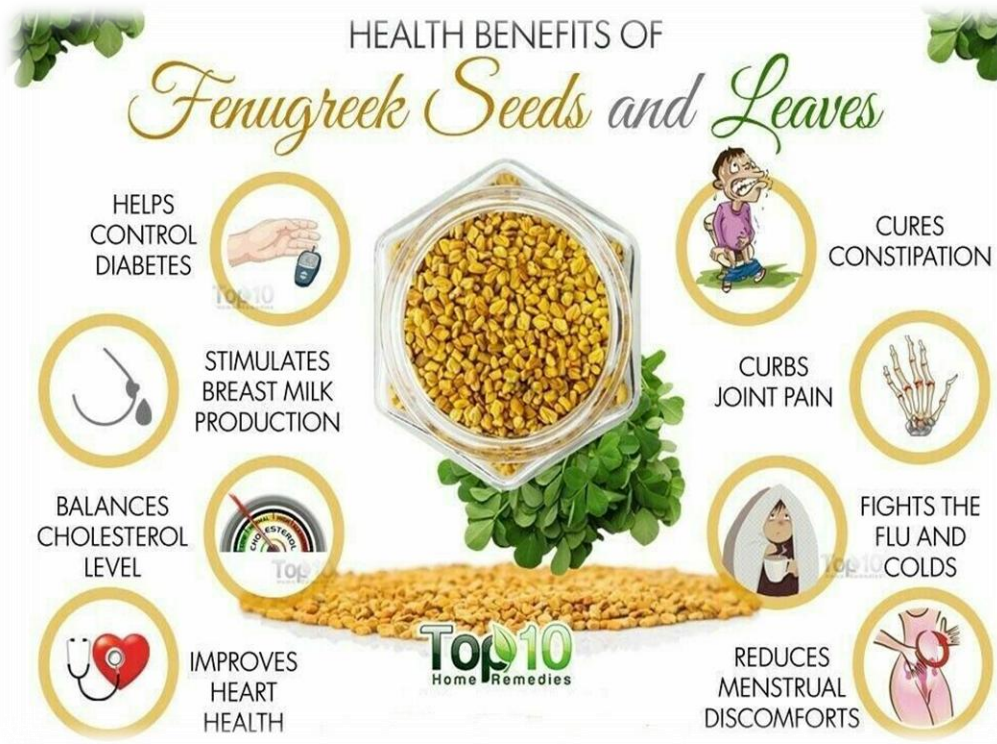
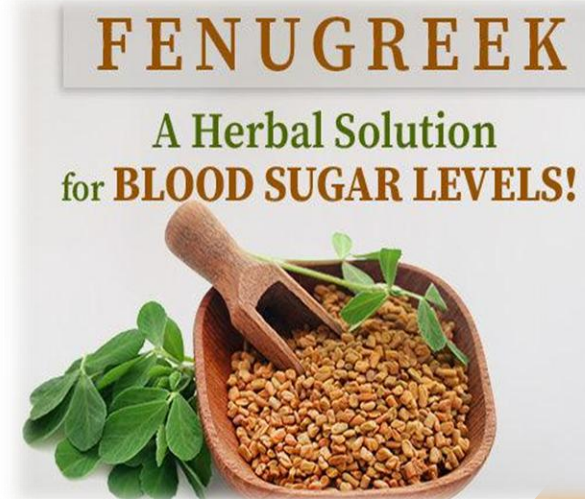


# Fenugreek

- ❖ Fenugreek is a plant native to the Mediterranean region and parts of Asia.
- ❖ **Scientific Name:** Trigonella foenum-graecum
- ❖ **Parts Used:** The seeds and leaves are the most utilized parts of the plant.
- ❖ **Biomarker:** Furostanol Saponins, 4-Hydroxyisoleucine, Alkaloids, Fenugreek Fiber (Soluble and Insoluble), Fenugreek Flavonoids, Galactomannan, Coumarins, Tannins and Phenolic Compounds



- Other Uses and Applications - Hair and Skin Care, Traditional Uses





## ❖ Dosage

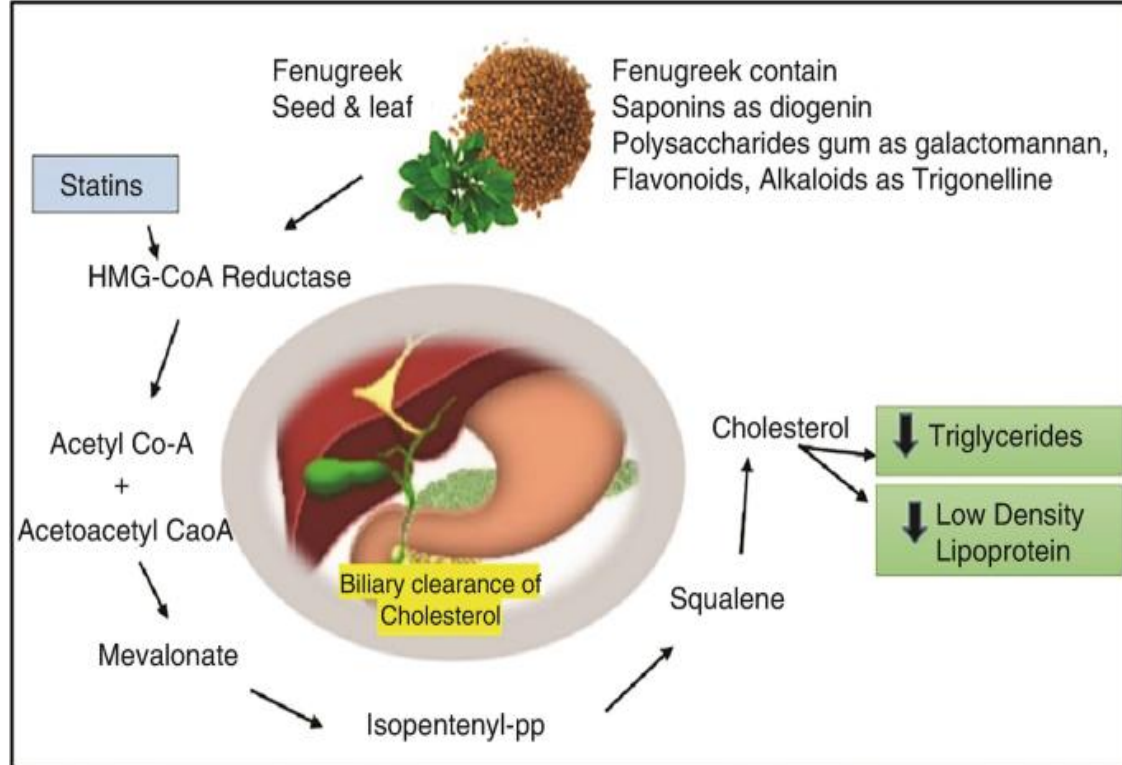
The appropriate **fenugreek dosage** can vary depending on the form of fenugreek being used;

- **Seed powder:** 5-15 grams per day.
- **Capsules/Tablets:** 500 mg to 1,000 mg, 1-3 times daily.
- **Tea:** 1-2 teaspoons per cup of water.
- **Extracts:** 250 mg to 500 mg per day.

It's always recommended to **start with a lower dose** and gradually increase based on tolerance.



## ❖ Studies on Fenugreek

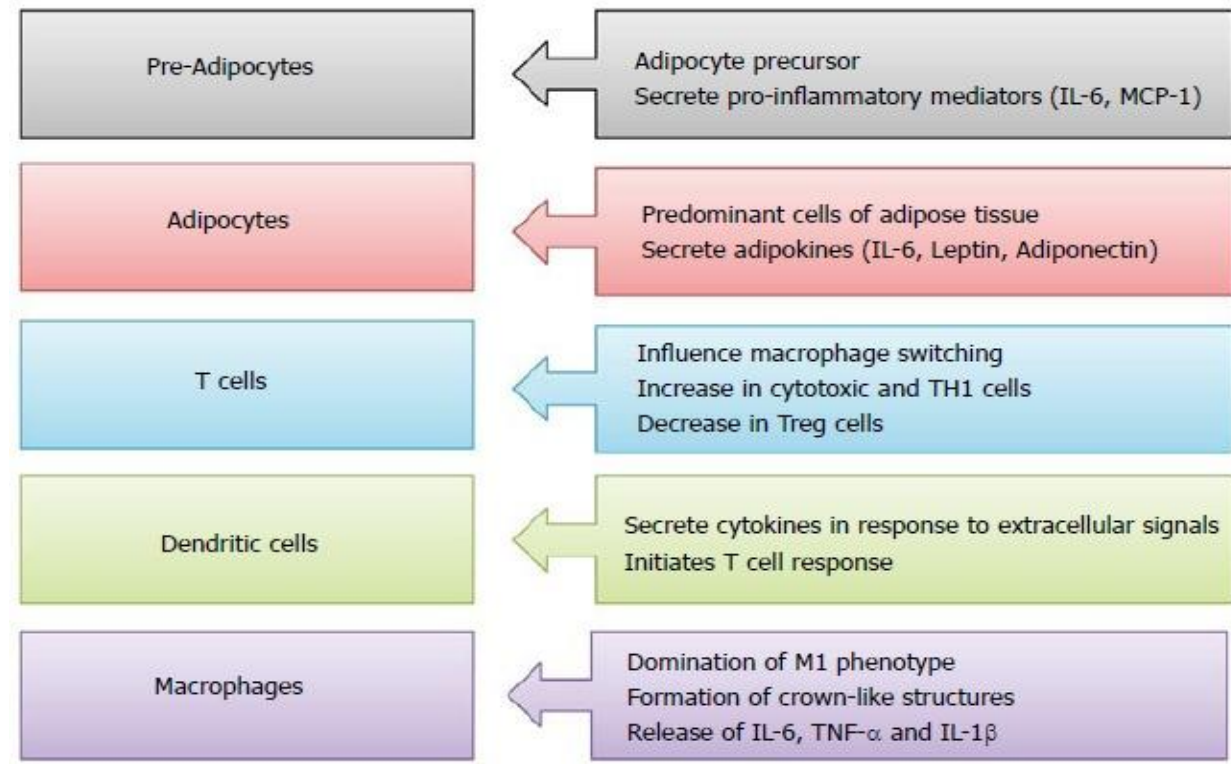


### • Lipid Profile Improvement

A study involving fenugreek seed powder demonstrated a significant reduction in total cholesterol, LDL cholesterol, and triglyceride levels in participants. These effects were attributed to fenugreek's high fiber content, which helps bind cholesterol and remove it from the body.

### • Blood Sugar Control in Type 2 Diabetes

A study demonstrated that fenugreek seeds, when taken in powder form, helped lower blood glucose levels and improved insulin sensitivity in individuals with type 2 diabetes. The active compounds like 4-hydroxyisoleucine and furostanol saponins are thought to be responsible for these effects.



Functions of various immune cell types in pathogenesis of type 2 diabetes. IL: Interleukin; MCP-1: Monocyte chemoattractant protein-1; TNF- $\alpha$ : Tumor necrosis factor  $\alpha$ .



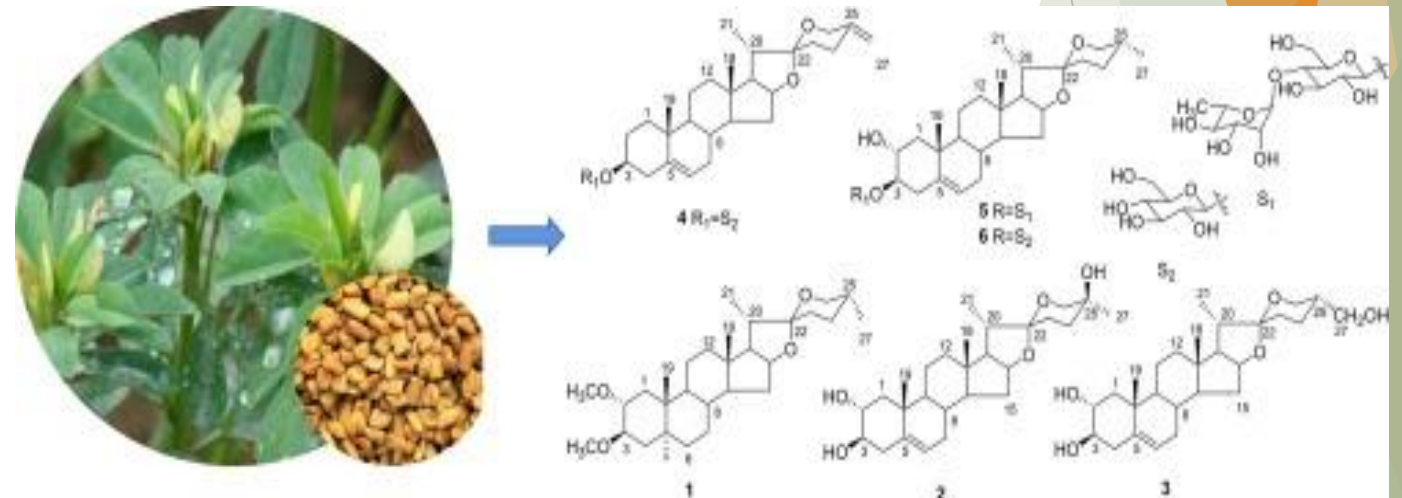
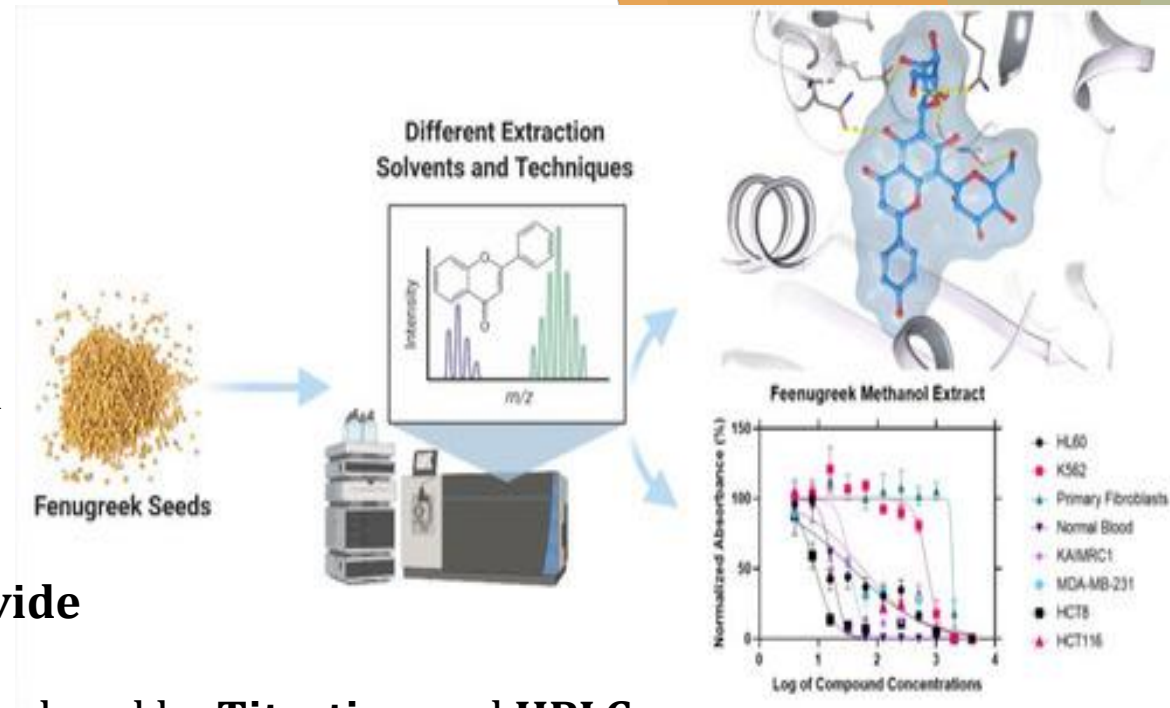
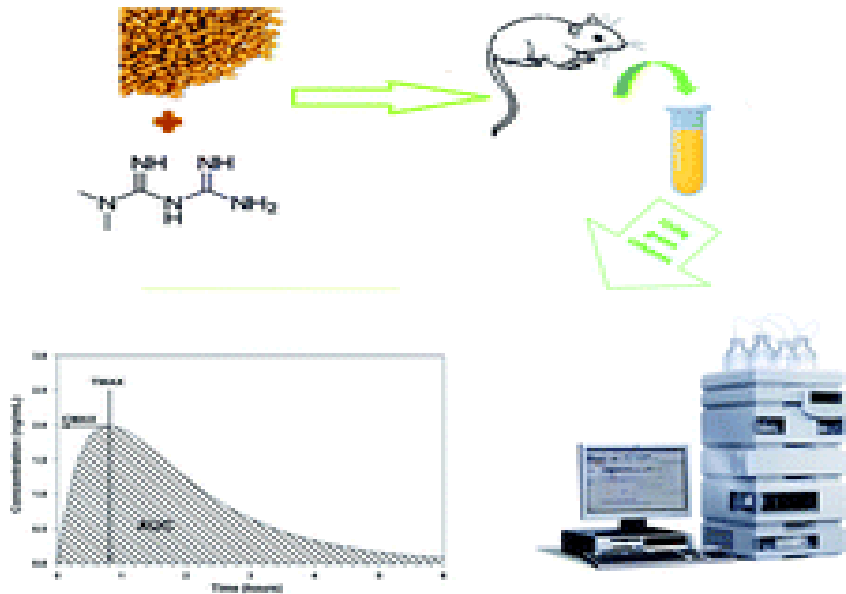
## ❖ Analysis

Fenugreek can be analyzed using a variety of scientific techniques to evaluate its **bioactive compounds**, **nutritional content**, **pharmacological properties**, and **quality control**. Here are several common methods used to analyze fenugreek:

**HPLC, TLC, GC, MS, FTIR, GC-MS**

## ❖ Konark can provide

Fenugreek extract analysed by **Titration** and **HPLC**



## ❖ Recent Studies:

Fenugreek (*Trigonella foenum-graecum*) is a plant that has been widely studied for its medicinal properties and health benefits. Its seeds are most commonly used, either in powder or extract form.

- **Cholesterol Reduction:**

**Study Title:** *Effect of fenugreek seeds on lipid profiles in patients with hyperlipidemia*

**Summary:** Fenugreek has been shown to reduce cholesterol and triglyceride levels, which may help prevent cardiovascular disease.

**Findings:** A study involving individuals with high cholesterol demonstrated that fenugreek supplementation led to a significant reduction in total cholesterol, LDL (bad cholesterol), and triglycerides, while increasing HDL (good cholesterol).

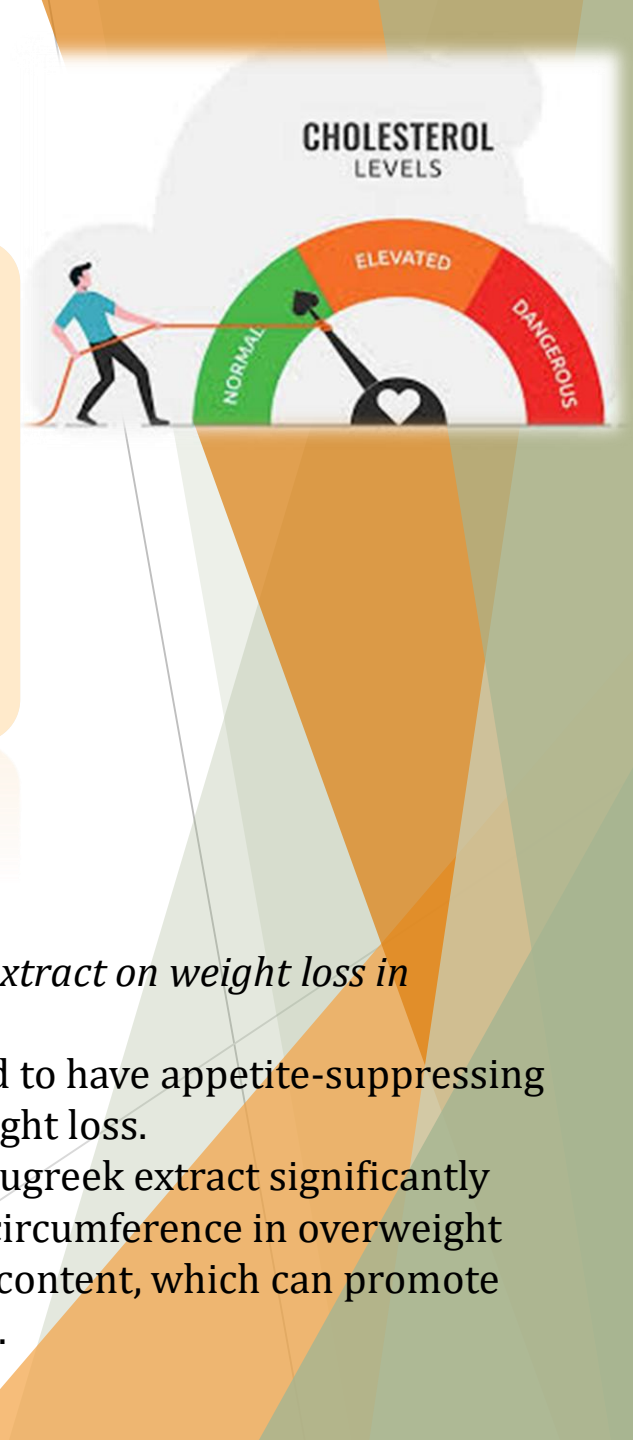


- **Weight Loss:**

**Study Title:** *Effect of fenugreek extract on weight loss in overweight and obese women*

**Summary:** Fenugreek is believed to have appetite-suppressing properties, which may aid in weight loss.

**Findings:** A study found that fenugreek extract significantly reduced body weight and waist circumference in overweight women, possibly due to its fiber content, which can promote satiety and reduce calorie intake.



• **Reference :**

1. <https://doi.org/10.4239/wjd.v6.i4.598>
2. <https://doi.org/10.1146/annurev-physiol-021113-170317>
3. <https://doi.org/10.1024/0300-9831.79.1.34>
4. <https://doi.org/10.1089/jmf.2011.0002>
5. <https://doi.org/10.1038/oby.2009.337>
6. <https://link.springer.com/article/10.1007/s00228-009-0770-0#citeas>

## Certifications

