

# Extraction of Fenugreek and its Effect on Prostate Cancer

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**Abstracts:** It is commonly believed that plant-made products are side-effect free. Thus 80% of people around the globe, mostly in emergent nations used herbs for medicinal purposes. Fenugreek (*Trigonella foenum graecum* L.) belongs to the family Fabaceae is a commercially important old known aromatic spice crop cultivated for its seeds, shoot, and leaves. It is a good source of vitamins, minerals, proteins, and fats and is used as a flavoring additive. Besides this, it is well known for its therapeutical properties, like antioxidant, anti-microbial, immunological, antidiabetic, anticarcinogenic anti-inflammatory activities. Phytochemicals are non-nutritive bioactive constituents that act as a protective agent against pathogenicity. Fenugreek contains various phytochemicals such as alkaloids, flavonoids, steroids, terpenoids, saponins, tannins, anthocyanin, etc. Diosgenin is a naturally found steroidal saponin and is a well-known bioactive compound obtained from fenugreek that has a unique structure, identical to estrogen. Practice shows that this bioactive compound diosgenin has pro-apoptotic and anti-cancer properties against various types of cancer including prostate cancer which is proliferation and metastasis of the prostate gl and. Except for diosgenin, there are various other bioactive compounds present in fenugreek that have anticarcinogenic properties. This review is going to explain various methods of extraction of bioactive compounds from fenugreek and finding their application in the suppression of carcinogenic activities of the prostate gland.

**Keywords:** *Trigonella foenum-graecum*, phytochemicals, diosgenin, prostate cancer, carcinogenic activities

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## Introduction

The fenugreek (*Trigonella foenum-graecum* L.), in India commonly known as Methi, is an annual spice herb representing the family Fabaceae. It is the oldest aromatic medicinal herb, which has great anti-bacterial and anti-fungal properties. It is used in Chinese traditional medicine and Indian Ayurveda for the treatment of various diseases. It is a famous spice, especially the seed and the green leaves are used in human food for flavoring, for color, for texturizing the food materials, and also used as a food stabilizer. As the world is growing modern, there is various kind of medicinal

perspectives, facing towards organic plant resources for disease diagnosis. Plant extracts are well-known for their ethnomedical uses, as they have a wide range of medicinal and nutraceutical properties. Fenugreek is a medicinal herb that has been used for decades to treat a variety of diseases. Many researchers have viewed fenugreek as a potential anti-inflammatory, anti-diabetic, hypolipidemic, and antioxidant properties and are all possible therapeutic properties of this plant. It affects immune functions, anticancer properties, antimicrobial properties, gastroprotective properties, and cardioprotective properties. Nowadays various studies on cancer show that