

# Evaluations of overnight soaked water extract of Fenugreek (*Trigonella Foenum graecum*) Seed.

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**Abstract:** *In the home tradition methods, the seeds of fenugreek are soaked and next day the aqueous extract is consumed. In the present study we evaluated the active constituents in water extract. On analyzing the extract so many bioactive constituents are found such as phenolics, flavonoids and saponins which are actively engaged in anti-diabetic property and anti-oxidant property.*

**Key words:** *Herbs, Spices, Antioxidants*

## Introduction:

Herbs and spices have long been used to improve the flavor. Fenugreek is one of the spices which are consumed in the whole world in different forms (Chaudhary *et al*; 2011). In India it is consumed in different ways. Some people soaked the seeds overnight and on the next day the water extract is consumed in empty stomach. In literature it is reported that seeds of fenugreek contain considerably amount of nutritionally significant ingredients (Soetan, 2008). However, the bioactive constituents present in the herbs are currently attracting and research of interest. In this research we attempted to evaluate the active constituents of overnight soaked seed of fenugreek.

## Materials and Methods:

### Materials

The fenugreek seed was procured from local market of Indore Madhya Pradesh.

### Preparation of the extract

20 g of seed material was soaked in 100 ml of water for 12 hours. It was filtered by using Whatman no.1 filter paper.

**Chemical Analysis:**

Qualitative analysis of extract was done by Harborne et al., 1969 and for antioxidants activity was done as per the procedures described by Tomoyuki (2002) and Chidambara et al. (2002).

**Results**

For the present study materials were procured from local market of Indore M.P. which contains considerable amount of Phytochemicals such as tannins, glycosides, phenols, flavonoids, saponins and highest amount of antioxidants as shown in the table.

Sample	Presence/Absence
Phenolics	+++++++
Tannins	+++++
Flavonoids	+++++++
Saponins	+++++
Glycosides	+++
Alkaloids	+++++
Quinone	++

Table 1: Presence of Phytochemicals in the extract of fenugreek seed extract

All the phytochemicals present in the water extract are reported to be antioxidants (Singh et al., 2014). The maximum concentration was found to be flavonoids and phenolics which are considered to be the most important phytochemicals as their activity are related to the anti cancer, anti diabetes and immuno enhancement (Abubakar, 2013). The other phytochemicals present are also important for human being as their efficacy is also directly related to the anti oxidant property (Rizkalla, 2002). The results of the present study indicates the secondary metabolites of water extract are considered to be health benefits so the extract should be considered as functional foods and nutraceuticals ingredients.

The antioxidant activities of water extract were expressed as percent DPPH radical scavenging activity with higher values indicating greater antioxidant activity. The antioxidant activity of fenugreek extract shows 84.56% inhibition of DPPD as it acts as a free radical.

## Conclusion

The present findings revealed the presence of different phytochemical such as tannins, phenolics, saponins and flavonoids in aqueous extract of fenugreek seeds. Due to presence of such important phytochemicals every one should take the extract of fenugreek seeds and seeds were used in different preparation of dishes.

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