

# Saffron- An Ancient Culinary Spice

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## ABSTRACT

Saffron is an expensive ancient culinary spice with a sturdy fragrance and yellowish golden color that is mostly used in cooking. It is also enriched source of vitamins, essential minerals, and many nonvolatile components as well that possess antioxidants properties. Additionally, it's been used in the treatment of several chronic ailments such as infertility in males, depression, mental illness, oxidative stress and other gynecological problems in females., erectile dysfunction, and infections Saffron is an and expensive herb.

**Keywords:** Oxidative Stress; Erectile Dysfunction; Premenstrual Syndrome; Crocetin; Alzheimer

## Introduction

Saffron is basically dried thread like structures derived from the style and stigma of the perennial flower *Crocus sativus* [1]. It is recognized in the culinary world as an expensive flavoring spice because of its laborious manual cultivation and harvesting referred to as Red Gold [2]. Iran, India, Spain and Greece are the well-recognized producers of saffron [3]. Besides being used in culinary it is also known to possess medicinal potencies such as given to patients suffering from depression, alopecia, premenstrual syndromes, premature ejaculation, infertility and Alzheimer disease [4,5]. In addition, extracts of saffron are used in textile dyeing and manufacturing fragrances [6].

## Nutritional Contents

Saffron contains numerous essential volatile oils such as geraniol, cineole, pinene, linalool, borneol, limonene, p-cymene, phenethenol, terpinen-4-oil, etc [7-9] and non-volatile components such as crocin, lycopene, zeaxanthin and carotenes which is responsible for its yellowish golden color and flavor [10]. In addition to that, saffron provides numerous essential minerals and vitamins including manganese, magnesium, potassium, zinc, calcium, copper, iron, selenium etc and vitamin C/A, riboflavin, niacin and folic acid respectively [11,12].

## Health Benefits of Saffron

Saffron has been reported to aid in the treatment of several diseases and clinical symptoms some of which are enlisted below:

- a) Depression:** Saffron is reported to be an effective antidepressant because it contains crocin, a well-known chemical compound which alleviates depression associated symptoms at a much faster rate [13]
- b) Premenstrual Syndrome:** Saffron is known to reduce menstrual pain during the female's fertility cycle [14]
- c) Lowers Blood Sugar Level:** It has been reported that intake of saffron can prevent blood sugar elevation [15].
- d) Asthma:** Patients with allergic asthma is mostly treated with saffron containing herbal tea however the exact mechanism or agent responsible for this effect is still a mystery [16].
- e) Muscle Performance:** Recent studies reported that a compound namely crocetin in saffron is responsible for reducing muscle sores and fatigue to improve muscle performance such as during exercise or athletics [17].
- f) Infertility:** Saffron is also reported to treat men with erectile dysfunction without altering the viability of the semen [18].
- g) Antioxidants:** Saffron is known to possess plants derived antioxidant compounds including crocetin, crocin, kaempferol, picrocrocin, safranal etc that aids in fighting against oxidative stress [19].

**h) Nervous System Disorders:** Saffron possess antioxidant and antidepressant property therefore is known to reduce oxidative stress and inflammation in the brain tissue [20,21]. In addition, saffron increases brains dopamine levels without disturbing normal serotonin levels [22].

**i) Obesity:** Intake of saffron promotes weight loss by reducing total fat mass and waist circumference by controlling compulsive overeating and curbing appetite [23].

### Side Effects of Saffron

Over consumption of saffron might have undesirable effects such as it was reported in pregnant women that increased uptake of saffron resulted in premature uterine stimulation causing bleeding [24]. Besides conditions like allergic reactions, anxiety, drowsiness, lower blood pressure, sweating, vomiting, constipation etc were also reported in some individuals [25,26].

### Conclusion

Saffron is commonly used as a flavoring agent in Asian and Mediterranean cuisines. But it is also known to possess antioxidants and antidepressant properties for which it is employed in the treatment of several medical conditions such as nervous system disorders and depression.

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