Crocus sativus

TAXONOMICAL CLASSIFICATION:[1]

- *Division: Spermatophyta*
- *Sub-division: Angiospermae*
- *Class: Monocotyledonae*
- *Sub-class: Liliidae*
- *Order: Liliales*
- *Family: Iridaceae*
- *Genus: Crocus*

https://www.britannica.com/topic/saffron

INTRODUCTION: [2]

CrocusSativus Linn(family: Iridaceae) is a flowering plant in the crocus family and is commonly known as saffron. It is widely used as spice and as a coloring and flavoring agent in the preparation of various foods and cosmetics. It is native to Iran and Greece. It is now cultivated largely in Southern Europe, Tibet and other countries. In India, it is mainly cultivated in Kashmir and Uttranchal. The stigmas of the plant are mainly used for therapeutic purposes. The stigmas of Crocus sativus Linn. (Saffron) are used as coloring and flavoring agents in the preparation of food in different parts of the world. Apart from its use in preparation of food, the stigmas of the plant are used for the treatment of a variety of disorders traditionally. The medicinal properties attributed to saffron are extensie. Crocus sativus Linn is a grass like tuber plant with purple or lilac colored flowers. The flower stalk rises from a bulb, and is a long, white, slender tube; the flower itself being large, and of a beautiful lilac color Leaves radical, linear, dark green above, pale green below, enclosed in a membranous sheath, sometimes remaining fresh nearly the whole winter.Corolla in two segments, betweenwhich the long styles hang out. Stigmas three, large, nearly an inch long, rolled at he edges, bright orange1. The stigmas of

saffron are the parts that have been used in medicine. They have a pleasantly bitter and somehat warming taste. They contain a large portion ofextractive matter, and a portion of volatile oil.

Medicinal Properties:[3]

- Sleep Problems (Insomnia)
- Cancer
- Hardening Of The Arteries (Atherosclerosis)
- Intestinal Gas (Flatulence)
- Depression
- Alzheimer's Disease
- Fright
- Shock
- Spitting Up Blood (Hemoptysis)
- Pain
- Heartburn
- Dry Skin
- Women Use Saffron For Menstrual Cramps And Premenstrual Syndrome (PMS).

SIDE EFFECTS OF EXCESS CONSUMPTION: [4]

- Dry Mouth
- Anxiety
- Agitation
- Drowsiness
- Low Mood
- Sweating
- Nausea or Vomiting
- Constipation or Diarrhea
- Change In Appetite
- Flushing
- Headache

- Allergic Reactions Can Occur In Some People.
- Taking Large amounts of saffron by mouth is POSSIBLY UNSAFE. High doses of 5 grams or more can cause poisoning. Doses of 12-20 grams can cause death.

DOSAGE: [5]

BY MOUTH:

- For Alzheimer disease: 30 mg of saffron extract daily for 22 weeks.
- For depression: 30 mg of a saffron extract or 100 mg of saffron daily for up to 12 weeks. 15 mg of the saffron chemical crocin twice daily for 4 weeks. 14 mg saffron extract (affron, Pharmactive Biotech Products) twice daily for 8 weeks.
- For premenstrual syndrome (PMS): 15 mg of a saffron extract twice daily.
- For menstrual cramps (dysmenorrhea): 500 mg of a specific combination product containing saffron, celery seed and anise extracts (SCA, Gol Daro Herbal Medicine Laboratory) taken three times a day for the first three days of menstruation.

RESEARCH:

1. Using random effects modeling procedures, we calculated weighted mean effect sizes separately for the saffron supplementation vs placebo control groups, and for the saffron supplementation vs antidepressant groups. The methodological quality of all studies was assessed using the Jadad score. The computer software Comprehensive Meta-analysis 2 was used to analyze the data.Based on our pre-specified criteria, five randomized controlled trials (n = 2 placebo controlled trials, n = 3 antidepressant controlled trials) were included in our review. A large effect size was found for saffron supplementation vs placebo control in treating depressive symptoms (M ES = 1.62, P < 0.001), revealing that saffron supplementation significantly reduced depression symptoms compared to the placebo control. A null effect size was evidenced between saffron supplementation and the antidepressant groups (M ES = -0.15) indicating that both treatments were similarly effective in reducing depression symptoms. The mean Jadad score was 5 indicating high quality of trials.Findings from clinical trials conducted to date indicate that saffron

supplementation can improve symptoms of depression in adults with MDD. Larger clinical trials, conducted by research teams outside of Iran, with long-term follow-ups are needed before firm conclusions can be made regarding saffron's efficacy and safety for treating depressive symptoms.[6]

2. Memory-related disorders are a common public health issue. Memory impairment is frequent in degenerative diseases (such as Alzheimer's disease and Parkinson disease), cerebral injuries, and schizophrenia. The dried stigma of the plant Crocus sativus L. (C. sativus), commonly known as saffron, is used in folk medicine for various purposes. Several lines of evidence suggest that C. sativus and its constituents are implicated in cognition. Here we critically review advances in research of these emerging molecular targets for the treatment of memory disorders, and discuss their advantages over currently used cognitive enhancers as well remaining challenges. Current analysis has shown that C. sativus and its components might be a promising target for cognition impairments.[7]
3. Crocus sativus L., commonly known as saffron, has known anti-depressive properties. However, its effects on food craving and body weight in depressed patients are unknown. Hence, we aimed to evaluate the effects of saffron capsules on food craving, body weight and depression among overweight women with mild and moderate depression compared to the placebo.Seventy-three women with BMI $\geq$ 25 comorbid with mild-to-moderate depression were recruited in this 12-week double-blind, placebo-controlled randomized clinical trial. Participants were randomly assigned into one of the two groups receiving daily either 30 mg of Crocus sativus capsules (15 mg twice/day) or placebo capsules (twice/day). We performed body composition assessments, and beck depression inventory-II at the baseline, and then 2, 4, 8 and 12 weeks later. One month after the participants stopped taking the capsules, weight differences were measured and compared between groups. Fifty-two patients finished the study. The demographic and clinical variables at baseline were the same in two groups. Mean depression scores in the saffron group significantly decreased compared to placebo (mean ± SD: −8.4 score ± 5.9 vs −3.9 ± 5.5; t[50] = 2; P = .007; 95% CI: 1.3-7.7). There was not a significant effect of saffron on food craving using repeated-measures ANOVA, F(1, 29) = 0.38, P = .54. Patients in the saffron group showed fewer side effects. Saffron capsules were not effective in reducing food craving, but as a safe over-the-counter supplement, it may help

reduce the symptoms of depression in patients who experience mild or moderate depression and are overweight.[8]

PRECAUTIONS & WARNINGS:[5]

Pregnancy and breast-feeding: Taking saffron by mouth in amounts larger than what is normally found in food is **LIKELY UNSAFE**. Larger amounts of saffron can make the uterus contract and might cause a miscarriage.

Bipolar disorder: Saffron seems to be able to affect mood. There is a concern that it might trigger excitability and impulsive behavior (mania) in people with bipolar disorder. Don't use saffron if you have this condition.

Diabetes: Saffron might affect blood sugar levels. Watch for signs of low blood sugar (hypoglycemia) and monitor your blood sugar carefully if you have diabetes and use saffron.

Heart conditions: Saffron might affect how fast and how strong the heart beats. Taking large amounts of saffron might worsen some heart conditions.

Low blood pressure: Saffron might lower blood pressure. Taking saffron might make blood pressure become too low in people with low blood pressure.

Surgery: Saffron slows down the central nervous system. Anesthesia and other medications used during surgery also affect the central nervous system. The combined effects might be harmful. Stop taking saffron at least two weeks before a scheduled surgery.

INTERACTIONS WITH MEDICATIONS:[5,9]

Moderate Interaction

Be cautious with this combination

Sedative medications (CNS depressants) interacts with CALENDULA

Calendula might cause sleepiness and drowsiness. Medications that cause sleepiness are called sedatives. Taking calendula along with sedative medications might cause too much sleepiness.

Some sedative medications include clonazepam (Klonopin), lorazepam (Ativan), phenobarbital (Donnatal), zolpidem (Ambien), and others.

Taking **saffron** with **medication** for high blood pressure might cause your blood pressure to go too low. Some **medications** for high blood pressure include nifedipine (Adalat, Procardia), verapamil (Calan, Isoptin, Verelan), diltiazem (Cardizem), isradipine (DynaCirc), felodipine (Plendil), amlodipine (Norvasc), and others

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