

St. John's wort

Overview

St. John's wort (*Hypericum perforatum*) has a history of use as a medicine dating back to ancient Greece, where it was used for a range of illnesses, including various nervous disorders. St. John's wort also has antibacterial, antioxidant, and antiviral properties. Because of its anti-inflammatory properties, it has been applied to the skin to help heal wounds and burns. St. John's wort is one of the most commonly purchased herbal products in the United States.

In recent years, St. John's wort has been studied extensively as a treatment for depression. Most studies show that St. John's wort may help treat mild-to-moderate depression, and has fewer side effects than most other prescription antidepressants. But it interacts with a number of medications, so it should be taken only under the guidance of a health care provider.

DO NOT use herbs to treat severe depression -- where you have trouble functioning day to day, or have thoughts of harming yourself or others. Always see a doctor if your depression is making it hard for you to function (See "*Precautions*" section).

Depression

There is good evidence that St. John's wort may reduce symptoms in people with mild-to-moderate, but not severe (or major) depression. In many studies it seems to work as well as selective serotonin reuptake inhibitors (SSRIs), a popular type of antidepressant often prescribed to treat depression. SSRIs include fluoxetine (Prozac), citalopram (Celexa), and sertraline (Zoloft). In addition, St. John's wort doesn't seem to cause loss of sex drive, one of the most common side effects of antidepressants.

St. John's wort contains several chemicals, including hypericin, hyperforin, and flavonoids. Researchers aren't exactly sure how St. John's wort works. Some have suggested that the herb acts similar to an SSRI, increasing the availability of the brain chemicals serotonin, dopamine, and norepinephrine. These neurotransmitters help improve mood. Scientists thought that hypericin was responsible, but now they believe that other chemicals in St. John's wort may help.

Not all studies agree, however. In one study, St. John's wort was found to be no more effective than placebo for treating depression. But these studies should be weighed against the majority that have found St. John's wort helps depression. For example, in the same study, Zoloft also failed to show any benefit in treating depression. Many other studies have compared St. John's wort to Prozac, Celexa, paroxetine (Paxil), and Zoloft, and found that the herb works as well as the drugs. Other studies are ongoing.



Other Uses

St. John's wort has also shown promise in treating the following conditions, a few of which are related to depression.

- **Premenstrual syndrome (PMS).** Research suggests that St. John's wort may help relieve physical and emotional symptoms of PMS in some women, including cramps, irritability, food cravings, and breast tenderness. One study reported a 50% reduction in symptom severity.
- **Menopause.** There's some evidence to suggest that St. John's wort, combined with black cohosh, helps improve mood and anxiety during menopause.
- **Seasonal affective disorder (SAD).** Used alone, St. John's wort has improved mood in people with SAD, a type of depression that occurs during the winter months because of lack of sunlight. SAD is usually treated with light therapy. Research shows that using St. John's wort together with phototherapy works even better.
- **Eczema, wounds, minor burns, hemorrhoids.** St. John's wort has antibacterial properties and may also help fight inflammation. Applied topically (to the skin), it may relieve symptoms associated with minor wounds and skin irritation.
- **Obsessive compulsive disorder (OCD), social phobia.** One early open-label study found that taking St. John's wort 450 mg, 2 times a day for 12 weeks improved OCD symptoms. However, other studies show that St. John's wort doesn't improve OCD.

Plant Description

St. John's wort is a shrubby plant with clusters of yellow flowers that have oval, elongated petals. Scientists believe it is native to Europe, parts of Asia and Africa, and the western United States. The plant gets its name because it is often in full bloom around June 24, the day traditionally celebrated as the birthday of John the Baptist. Both the flowers and leaves are used as medicine.

What's It Made Of?

The best-studied active components are hypericin and pseudohypericin, found in both the leaves and flowers. However, researchers are not sure whether these components are responsible for St. John's wort's healing properties. Scientists are studying St. John's wort's essential oils and flavonoids.

Available Forms

St. John's wort can be obtained in many forms: capsules, tablets, tinctures, teas, and oil-based skin lotions. Chopped or powdered forms of the dried herb are also available. Most products are standardized to contain 0.3% hypericin.

How to Take It

Pediatric

Most studies on St. John's wort have been conducted in adults. However, one study (more than 100 children under age 12) indicated that St. John's wort may be a safe and effective way of treating mild-to-moderate symptoms of depression in children. Never give your child St. John's wort without medical supervision. Children who are being treated with St. John's wort should be carefully monitored for side effects, such as allergic reactions or upset stomach. You should not try to treat depression in a child without a doctor's help because depression can be a serious illness.

Adult

- Dry herb (in capsules or tablets). The usual dose for mild depression and mood disorders is 300 mg (standardized to 0.3% hypericin extract), 3 times per day, with meals. St. John's wort is available in time-release capsules.
- St. John's wort is also available as a liquid extract or tea. Ask your doctor to help you find the right dose.

It may take 3 to 6 weeks to feel any effects from St. John's wort.

DO NOT stop taking St. John's wort all at once because that may cause unpleasant side effects. Gradually lower the dose before stopping.

Precautions

The use of herbs is a time-honored approach to strengthening the body and treating disease. Herbs, however, can trigger side effects and can interact with other herbs, supplements, or medications. For these reasons, you should take herbs with care, under the supervision of a health care provider.

St. John's wort is often used to treat depression. If your depression is causing problems with your daily life, or you are having thoughts of suicide or of harming yourself or others, you need to see a doctor immediately. St. John's wort should not be used to treat severe depression.

You should see a doctor to make sure you have the right diagnosis before taking St. John's wort. Your doctor can help you determine the right dose and make sure you are not taking medications that might interact with St. John's wort.

Side effects from St. John's wort are generally mild and include stomach upset, hives or other skin rashes, fatigue, restlessness, headache, dry mouth, and feelings of dizziness or mental confusion. St. John's wort can also make the skin overly sensitive to sunlight, called photodermatitis. If you have light skin and are taking St. John's wort, wear long sleeves and a hat when in the sun, and use a sunscreen with at least SPF 15 or higher. Avoid sunlamps, tanning booths, and tanning beds.

Other potential concerns about St. John's wort are that it may interfere with getting pregnant or make infertility worse; that it may make symptoms of ADD and ADHD worse, especially among people taking methylphenidate; that it may increase the risk of psychosis in people with schizophrenia; and that it may contribute to dementia in people with Alzheimer disease. More research is needed.

Since St. John's wort can interact with medications used during surgery, you should stop taking it at least 5 days or more before surgery. Make sure your doctor and surgeon know you are taking St. John's wort.

DO NOT take St. John's wort if you have bipolar disorder. For people with major depression, there's some concern that taking St. John's wort may increase the risk for mania.

Women who are pregnant, trying to become pregnant, or breastfeeding should not take St. John's wort.

Possible Interactions

St. John's wort interacts with a large number of medications. In most cases, St. John's wort makes the medication less effective. In other cases, St. John's wort may make the effects of a medication stronger.

If you are being treated with any medications, you should not use St. John's wort without first talking to your doctor. St. John's wort may interact with many different medications, including but not limited to the following:

Antidepressants

St. John's wort may interact with medications used to treat depression or other mood disorders, including tricyclic antidepressants, SSRIs, and monoamine oxidase inhibitors (MAOIs). Taking St. John's wort with these medications tends to increase side effects, and could lead to a dangerous condition called serotonin syndrome. DO NOT take St. John's wort with other antidepressants, including:

- SSRIs: Citalopram (Celexa), escitalopram (Lexapro), fluvoxamine (Luvox), paroxetine (Paxil), fluoxetine (Prozac), sertraline (Zoloft)
- Tricyclics: Amitriptyline (Elavil), nortriptyline (Pamelor), imipramine (Tofranil)
- MAOIs: Phenelzine, (Nardil), tranylcypromine (Parnate)
- Nefazodone (Serzone)

Allergy drugs (antihistamines)

St. John's wort may reduce levels of these drugs in the body, making them less effective:

- Loratadine (Claritin)
- Cetirizine (Zyrtec)
- Fexofenadine (Allegra)

Clopidogrel (Plavix)

Theoretically, taking St. John's wort along with clopidogrel may increase the risk of bleeding.

Dextromethorphan (cough medicine)

Taking St. John's wort at the same time as dextromethorphan, a cough suppressant found in many over-the-counter cough and cold medicines, can increase the risk of side effects, including serotonin syndrome.

Digoxin

St. John's wort may lower levels of the medication and make it less effective. DO NOT take St. John's wort if you take digoxin.

Drugs that suppress the immune system

St. John's wort can reduce the effectiveness of these medications, which are taken after organ transplant, or to control autoimmune diseases. There have been many reports of cyclosporin blood levels dropping in those with a heart or kidney transplant, even leading to rejection of the transplanted organ.

- Adalimumab (Humira)
- Azathioprine (Imuran)
- Cyclosporine
- Etanercept (Enbrel)
- Methotrexate
- Mycophenolate mofetil (CellCept)
- Tacrolimus (Prograf)

Drugs to fight HIV

St. John's wort appears to interact with at least two kinds of medications used to treat HIV and AIDS: protease inhibitors and non-nucleoside reverse transcriptase inhibitors. The Food and Drug Administration recommends that St. John's wort not be used with any type of antiretroviral medication used to treat HIV or AIDS.

Birth control pills

There have been reports of breakthrough bleeding in women on birth control pills who were also taking St. John's wort. It is possible that the herb might make birth control pills less effective, leading to unplanned pregnancies.

Aminolevulinic acid

This medication makes your skin more sensitive to sunlight. St. John's wort also increases skin sensitivity to light. Together, they may have a dangerous impact on skin sensitivity to the sun.

Reserpine

Based on animal studies, St. John's wort may interfere with reserpine's ability to treat high blood pressure.

Sedatives

St. John's wort can increase the effect of drugs that have a sedating effect, including:

- Anticonvulsants, such as phenytoin (Dilantin) and valproic acid (Depakote)
- Barbiturates
- Benzodiazepines, such as diazepam (Valium)
- Drugs to treat insomnia, such as zolpidem (Ambien), zaleplon (Sonata), eszopiclone (Lunesta), and ramelteon (Rozerem)
- Tricyclic antidepressants, such as amitriptyline (Elavil)
- Alcohol

Alprazolam (Xanax)

St. John's wort may speed up the breakdown of Xanax in the body, making it less effective.

Theophylline

St. John's wort can lower levels of this medication in the blood. Theophylline is used to open the airways in people with asthma, emphysema, or chronic bronchitis.

Triptans (used to treat migraines)

St. John's wort can increase the risk of side effects, including serotonin syndrome, when taken with these medications:

- Naratriptan (Amerge)
- Rizatriptan (Maxalt)
- Sumatriptan (Imitrex)
- Zolmitriptan (Zomig)

Warfarin (Coumadin)

St. John's wort reduces the effectiveness of warfarin, an anticoagulant (blood thinner).

Other drugs

Because St. John's wort is broken down by certain liver enzymes, it may interact with other drugs that are broken down by the same enzymes. Those drugs may include:

- Antifungal drugs, such as ketoconazole (Nizoral), itraconazole (Sporanox), fluconazole (Diflucan)

- Statins (drugs taken to lower cholesterol), including atorvastatin (Lipitor), lovastatin (Mevacor), and simvastatin (Zocor)
- Imatinib (Gleevec) -- may make Gleevec less effective
- Irinotecan (Camptosar) -- may speed up the rate at which Camptosar is broken down by the body, making it less effective
- Some calcium channel blockers (taken to lower blood pressure)
- Any medication broken down by the liver

Supporting Research

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