



## ST. JOHN'S WORT

### Summary

St. John's wort (*Hypericum perforatum*) is a plant that grows in parts of North America, Europe, Asia and North Africa. This herb contains many active compounds, including hypericin, pseudohypericin and hyperforin, some of which may help people better cope with anxiety and mild to moderate depression.

### Why do HIV positive people use this supplement?

#### 1. To fight HIV and hepatitis C virus

In 1989, researchers found that two extracts of St. John's wort had anti-HIV activity in lab experiments with cells and viruses. Hypericin's antiviral activity in the test tube, however, depends on its interaction with light. An American clinical trial of intravenous hypericin found no anti-HIV benefit, and 50% of subjects left that study after eight weeks because of toxicity. Similarly, another American study of intravenous hypericin for the treatment of hepatitis C virus (HCV) infection did not detect any significant anti-HCV effect of the herb. Most people who use St. John's wort aren't using it, or its extracts, for its antiviral activity, perhaps because no clinical benefit has been shown in controlled studies.

#### 2. To relieve anxiety and mild depression

Extracts of St. John's wort are being studied and used as a treatment for anxiety and mild to moderate depression. Controlled studies that compared the herb with prescription antidepressants or fake St. John's wort (placebo) found that its extracts can help relieve feelings

of anxiety and mild depression in some people. Subjects using the plant's extracts also reported fewer side effects than did those on standard antidepressant therapy. Readers should note that most of these studies didn't go beyond six weeks, and some used relatively low doses of prescription antidepressants.

### Is it really depression?

People with HIV/AIDS (PHAs) who feel that they may be experiencing symptoms of depression should have this confirmed by a doctor. Moreover, treatment of depression, as with every other illness, should be done under medical supervision, even if an herbal extract such as hypericin is being used. Readers should note that certain medical conditions can trigger the onset of depression and anxiety. These conditions may include the following:

- imbalanced levels of thyroid hormones
- low levels of testosterone in men
- diabetes
- low intake of B-complex vitamins, particularly B12 and folic acid (folate)
- As well, many medications can cause depression in a small number of people.



Examples of these drugs include the following:

- lipid-lowering drugs
- corticosteroids
- interferons

## Side effects

St. John's wort can make people more sensitive to sunlight. Users may therefore develop sunburn, rash, headache, tiredness and other symptoms of photosensitivity. Taking St. John's wort with other drugs that can cause photosensitivity, such as Bactrim/Septra (trimethoprim-sulfamethoxazole), may increase the risk of developing this side effect.

Apart from photosensitivity, reports from some clinical trials suggest that St. John's wort and its extracts may be associated with the following side effects:

- dry mouth
- fatigue
- mild nausea
- dizziness or confusion

Overall, side effects from St. John's wort are milder than those from prescription antidepressants, according to studies that compared these two types of treatments. In some cases, side effects associated with St. John's wort were similar to those seen with placebo.

## Warning

St. John's wort may reduce the effectiveness of anti-HIV and other drugs by interfering with enzymes in the liver and intestine that break down medications. This speeds up the body's elimination of these drugs and consequently lowers levels of these drugs in the blood.

According to one study, the use of St. John's wort can cause a significant decrease in indinavir (Crixivan) levels in the blood, ranging from 49 percent to 99 percent. In addition to reducing the efficacy of indinavir, a drop this large in the drug's level may increase the risk of resistance.

Given its effect on liver enzyme activity, it is possible that St. John's wort may also reduce the levels of other protease inhibitors (PIs) and/or non-nukes (non-nucleoside reverse transcriptase inhibitors, or NNRTIs) in the blood. This may result in the development of strains of HIV that are resistant to PIs and non-nukes. Indeed, doctors have also found that St. John's wort can reduce levels of the non-nuke nevirapine (Viramune) in PHAs. If you develop these drug-resistant strains of HIV, it means that these drugs will no longer work for you. It is therefore essential for PHAs who are taking anti-HIV drugs to tell their doctors if they are using St. John's wort or any other herbal supplement. Other drugs that can be affected by St. John's wort include the following:

- cyclosporine (Neoral, Sandimmune)
- birth control pills
- ecstasy and other street drugs
- methadone
- Viagra

## Drug interactions

Due to its antidepressant properties, St. John's wort and its extracts can potentially cause unpleasant or dangerous reactions when taken with certain other drugs (as can other antidepressants). These drugs include prescription antidepressants such as, but not limited to, the following:

- amitriptyline (Elavil), imipramine (Tofranil)
- Effexor (venlafaxine), Luvox (fluvoxamine), Paxil (paroxetine), Prozac (fluoxetine), Serzone (nefazadone), Zoloft (sertraline)
- Other medications that have the potential for similar interactions include:
  - amphetamines
  - narcotic pain relievers such as morphine, and other drugs containing codeine, such as Percocet, Percodan and Tylenol-containing drugs available only with a prescription
  - over-the-counter flu and cold remedies



## Available forms and usage

St. John's wort is usually sold in tablet, capsule and liquid form in drug stores and health food stores. Tablets and capsules sold in North America tend to contain 0.3 percent hypericin. However, since manufacturing processes can vary widely, as can the concentration of ingredients in different preparations, people who intend to use this herb should ask their health care providers for advice on brands and dosages.

## Credits

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