



# ST. JOHN'S WORT (Hypericin)

## WHAT IS ST. JOHN'S WORT?

St. John's Wort is a flowering plant. ("Wort" is an old English word for an herb or plant.) It grows in many parts of the world. Its scientific name is *hypericum perforatum*. All of the aboveground parts of the plant are used. They are collected while the plant is flowering.

St. John's Wort has traditionally been used to treat bruises, burns, and mild depression or anxiety. St. John's Wort contains many different substances that work together. A major compound is *hypericin*.

## WHAT ARE THE BENEFITS OF ST. JOHN'S WORT?

Currently, the major use of St. John's Wort is to treat mild depression or anxiety. In 1996, the British Medical Journal published a review of scientific studies on St. John's Wort and depression. This review supports the herb's use to treat mild or moderate depression. A study of 150 patients in 2006 showed similar results. Exactly how St. John's Wort treats depression is unclear, although it may be similar to the action of some pharmaceutical products.

Hypericin is active against several viruses, including cytomegalovirus, human papillomavirus, hepatitis B, and herpes. This antiviral activity has been shown in the laboratory and animal studies, but not in human studies. The herb seems to work against viruses by oxidation. The herb's antiviral effect is stronger when exposed to light.

St. John's Wort was studied in 1991 in people with HIV disease. The doses were much higher than for treating depression. Patients were given intravenous doses of purified hypericin. The study was stopped when every white-skinned patient in the trial became very sensitive to light. They developed skin rashes and some could not go outside until after they stopped taking hypericin. The one black-skinned patient did not have this reaction.

## WHY DO PEOPLE WITH HIV USE ST. JOHN'S WORT?

Although St. John's Wort has some antiviral activity at high doses, there are no scientific studies to show that it can reduce people's

HIV viral load. However, it is effective against mild to moderate depression and anxiety. It is also useful for treating insomnia. Many people with HIV have used St. John's Wort for these purposes. **Early in 2000, a study showed that St. John's Wort causes a large drop in blood levels of indinavir. See "How Does It Interact With Other Therapies."**

## HOW IS ST. JOHN'S WORT USED?

St. John's Wort is used in several forms. The most common form is in capsules containing a powder of the dried plant. It is also used in oil-based preparations, especially for use on the skin. As mentioned earlier, a highly purified form of hypericin was used in research studies but caused serious sensitivity to light.

The British review of the use of St. John's Wort to treat depression found that many different doses were used. The best dosage is not known.

## WHAT ARE THE SIDE EFFECTS?

The only known side effect of St. John's Wort is skin rash and sensitivity to light. This side effect is only seen with a purified extract or at extremely high dosages. St. John's Wort has sometimes been used to increase women's menstrual flow. It may have a negative effect on fertility for both men and women. Pregnant women should not use it.

## HOW DOES IT INTERACT WITH OTHER THERAPIES?

There are very few studies of interactions between St. John's Wort and medications or other herbs. Some bad reactions have been reported in people who combine St. John's Wort with anti-depression medications. **Do not use St. John's Wort with other antidepressants.**

A study published in February 2000 showed that St. John's Wort affects the liver and reduces the levels of indinavir (Crixivan) in

the blood. Even low doses of St. John's Wort made the blood levels of indinavir go down by more than 50%. **This could make indinavir ineffective against HIV and allow resistance to develop rapidly.**

St. John's Wort probably also changes the blood levels of other drugs that are broken down by the liver, including non-nucleoside reverse transcriptase inhibitors and protease inhibitors. **DO NOT USE ST. JOHN'S WORT IF YOU ARE TAKING ANTIRETROVIRAL DRUGS (ARVs). Be sure your health care provider knows if you are using St. John's Wort.**

However, most antidepressant drugs also change the blood levels of some ARVs. You and your health care provider should discuss the costs, risks, and benefits of different treatments for depression.

St. John's Wort may also block the effects of birth control pills and may interfere with several other medications. Be sure your health care provider knows if you are taking St. John's Wort while taking **ANY** medications.

## THE BOTTOM LINE

St. John's Wort is a flowering plant used for several health problems. It is mainly used to treat mild or moderate depression. It is active against viruses in the laboratory and in some animal studies. However, high doses of a purified extract used in human studies of its antiviral effect caused serious sensitivity to light.

St. John's Wort interacts with the liver and speeds up the processing of some drugs, including protease inhibitors. **Do not use St. John's Wort if you are taking ARVs.**

People with HIV may want to take St. John's Wort to deal with mild or moderate depression, **if they are not taking ARVs.** Be sure your health care provider knows if you are taking St. John's Wort while taking **ANY** medications.

Revised September 26, 2008