



ARV interaction alert: St. John's Wort

St. John's Wort is a plant extract that many people use to treat mild to moderate cases of depression. Be careful, though, because St John's Wort can interact with antiretrovirals and decrease their effectiveness.

by Rachel Therrien

People have been taking St. John's Wort for hundreds of years to treat depression, anxiety, nervousness and sleep disorders. It's also reported to have anti-inflammatory, antioxidant, anti-fungal, painkilling and anti-bacterial properties. To date though, mild to moderate depression is the only condition that St John's Wort can reliably treat in controlled, scientific studies.

Unlike pharmaceutical antidepressants, the way St. John's Wort acts in the body is only partially understood. Sold in capsules, teas or extracts, the main side effects are gut-related, like nausea. Some people report other discomforts like itchiness, fatigue, lack of sleep, headaches and increased sensitivity to the sun.

Interactions with antiretrovirals

Although it may help treat depression and have fewer side effects than prescription antidepressants, it's not a safe option for people living with HIV who are on certain medications. St. John's Wort causes some antiretrovirals to be less effective in keeping viral loads down.

It's not 100% clear yet exactly how St. John's Wort interacts with these drugs, but it is known that it interacts with a protein called p-glycoprotein that helps transport other molecules throughout the body, especially in the intestines. St. John's Wort can also kick-start another molecule called cytochrome P450. Increased activity of these two molecules decreases absorption of substances into the bloodstream and activates the breakdown of some drugs, including protease inhibitors (PI) and non-nucleoside reverse transcriptase inhibitors (NNRTI).

Special alerts

In one study, St. John's Wort lowered levels of indinavir (Crixivan®) in the blood by 60%. Less drug in the blood means less antiretroviral action, leading to increased possibility of resistance as well as possible treatment failure. The table provides a

complete list of antiretrovirals that can lose their effectiveness if you take St. John's Wort.

Serotonin syndrome

Prescription antidepressants like Paxil®, Zoloft® and Prozac® increase the amount of serotonin in the brain. If you take St. John's Wort with one of these you could develop what's known as serotonin syndrome. Signs and symptoms include shaking, hallucinations, agitation and involuntary muscle contractions. This condition is potentially very serious and if you have any of these symptoms you must stop taking St. John's Wort immediately.

Other products like relaxation teas and weight loss capsules may also contain St. John's Wort. It's very important that you carefully read the labels of these products.

Talk to your doctor

Although natural, St. John's Wort is a powerful substance. It's very important you tell your doctor and pharmacist you're taking St. John's Wort or any other over-the-counter (OTC) medication as they can interact with other prescription drugs. Your healthcare team can tell you if you're at risk for drug interactions. **R**

Rachel Therrien is a clinical pharmacist at the Unité Hospitalière de Recherche et d'Enseignement pour le sida (UHRESS) at the Université de Montréal hospital centre



Bad combos with St. John's Wort

Don't take St. John's Wort if you're on any of these meds as it can disrupt antiretroviral action, cause increased side effects and result in drug resistance.

Protease Inhibitors (PI)

- amprenavir (Agenerase®)
- atazanavir (Reyataz®)
- fosamprenavir (Telzir™)
- indinavir (Crixivan®)
- lopinavir/ritonavir (Kaletra®)
- nelfinavir (Viracept®)
- ritonavir (Norvir®)
- saquinavir (Fortovase®/ Invirase®)

Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTI)

- delavirdine (Rescriptor®)
- efavirenz (Sustiva®)
- nevirapine (Viramune®)