AFRICAN WILD POTATO

Also Known As:

CAUTION: See separate listing for Potato.

Scientific Name:

Hypoxis hemerocallidea, synonym Hypoxis rooperi. 
Family: Hypoxidaceae or Liliaceae.

People Use This For:

Orally, the African wild potato is used for bladder and urinary disorders including cystitis, prostate problems including prostatic hyperplasia and prostate cancer, lung disease, and cancer. It is also used in maintaining health in individuals who are HIV positive, for tuberculosis, "yuppie flu," arthritis, and psoriasis. Topically, the African wild potato is used for wound healing.

Safety:

POSSIBLY SAFE ...when used orally and appropriately. Some African wild potato extracts have been safely used for up to 18 months (5327, 5328, 7198, 13584, 30475). However, an African wild potato tea has been associated with bone marrow suppression and ventricular tachycardia (13581).

PREGNANCY AND LACTATION: Insufficient reliable information available; avoid using.

Effectiveness:

POSSIBLY EFFECTIVE
Benign prostatic hyperplasia (BPH). Some African wild potato extracts (Harzol, Azuprostat), taken orally, either alone or in combination with other beta-sitosterol sources, seem to reduce urinary symptoms, improve urine flow, and improve quality of life in patients with BPH (5327, 5328, 7198, 30475).

INSUFFICIENT RELIABLE EVIDENCE to RATE

Mechanism of Action:

The applicable part of African wild potato is the tuber. The African wild potato tuber contains 3.5% to 4.5% lignans, particularly norlignan glycoside (13582). African wild potato also contains beta-sitosterol and beta-sitosterolin, and is sometimes used as a
commercial source of beta-sitosterol (5327, 5328, 7198). African wild potato seems to inhibit the production of cyclooxygenase (COX)-1 and COX-2 prostaglandin biosynthesis. Preliminary research suggests it might have anti-inflammatory and free-radical scavenging activity. African wild potato also seems to modestly inhibit Escherichia coli growth, but at doses typically used, it is unlikely to have an antibacterial effect (13583). Animal research suggests that African wild potato might lower blood glucose levels, but this hasn't been seen in humans (11236).

**Adverse Reactions:**

Orally, specific beta-sitosterol extracts of African wild potato (Azuprostat, Harzol) are usually well-tolerated. In some patients, these preparations can cause nausea, indigestion, gas, diarrhea, or constipation (5327, 5328). The beta-sitosterol constituent has also been associated with erectile dysfunction and loss of libido (5942). Hypoxoside, another African wild potato constituent, has been associated with anxiety, nausea, vomiting, and diarrhea (13584). Other extracts and tea prepared from African wild potato tuber have been associated with bone marrow suppression in patients with HIV disease and with ventricular tachycardia (13581).

**Interactions with Herbs & Supplements:**

**CAROTENE:** The beta-sitosterol may reduce absorption and blood levels of alpha-and beta-carotene (5814).

**HERBS AND SUPPLEMENTS WITH HYPOGLYCEMIC POTENTIAL:** Evidence from animal research suggests that African wild potato lowers blood glucose levels (11236). Theoretically, African wild potato might have additive effects with other herbs and supplements that decrease blood glucose levels. Some herbs and supplements with hypoglycemic potential include agaricus mushroom, devil's claw, fenugreek, guar gum, Panax ginseng, Siberian ginseng, and others.

**VITAMIN E:** The beta-sitosterol may reduce absorption and blood levels of vitamin E (5814).

**Interactions with Drugs:**

**ANTIDIABETES DRUGS**

Interaction Rating = Moderate. Be cautious with this combination. Severity = Moderate • Occurrence = Possible • Level of Evidence = D

Evidence from animal research suggests that African wild potato lowers blood glucose levels (11236). Theoretically, concomitant use of African wild potato and antidiabetes drugs might increase the risk of hypoglycemia. Dose adjustments might be necessary. Some antidiabetes drugs include glimepiride (Amaryl), glyburide (DiaBeta, Glynase PresTab, Micronase), insulin, pioglitazone (Actos), rosiglitazone (Avandia), and others.

**CYTOCHROME P450 3A4 (CYP3A4) SUBSTRATES**

Interaction Rating = Moderate. Be cautious with this combination. Severity = Moderate • Occurrence = Possible • Level of Evidence = D

In vitro evidence suggests that African wild potato extract can inhibit cytochrome P450 3A4 (CYP3A4) enzyme activity by up to 86% (22347). Theoretically, African wild potato might increase levels of drugs metabolized by CYP3A4. However, this interaction has not been reported in humans. Until more is known, use African wild potato cautiously or avoid in patients taking drugs metabolized by CYP3A4. Some drugs metabolized by CYP3A4 include lovastatin (Mevacor), ketoconazole (Nizoral), itraconazole (Sporanox), fexofenadine (Allegra), triazolam (Halcion), and numerous others.
Interactions with Foods:

CAROTENE, VITAMIN E: The beta-sitosterol constituent of African wild potato may reduce absorption and blood levels of alpha- and beta-carotene and vitamin E (5814).

Interactions with Lab Tests:

CHOLESTEROL: The beta-sitosterol constituent of African wild potato may decrease total serum cholesterol and low-density lipoprotein (LDL) levels (5331, 5336).

Interactions with Diseases or Conditions:

DIABETES: African wild potato might lower blood glucose levels (11236). Theoretically, use of African wild potato might increase the risk of blood sugar levels becoming too low in patients with diabetes. Monitor blood glucose levels closely.

KIDNEY DISEASE: Animal research suggests that chronic use of aqueous extract of African wild potato significantly decreases urinary sodium output and glomerular filtration rate, while acute doses seem to reduce urine flow, as well as sodium and potassium output (30484). Theoretically, African wild potato might further impair kidney function in individuals with kidney disease.

SITOSTEROLEMIA (PHYTOSTEROLEMIA): The beta-sitosterol constituent of African wild potato can exacerbate sitosterolemia, a rare inherited lipid storage disease (5326, 10305). People with this disorder have increased absorption of cholesterol and beta-sitosterol from the diet, and decreased clearance of beta-sitosterol. Total body stores of beta-sitosterol are increased up to 17-fold. Elevated hepatic beta-sitosterol levels competitively inhibit cholesterol catabolism, contributing to hypercholesterolemia (3663). Patients with sitosterolemia are prone to premature coronary artery disease and xanthomas (3661, 3662). Beta-sitosterol and its glycoside sitosterolin are contraindicated in patients with sitosterolemia. However, beta-sitosterol appears to be safe for heterozygous carriers of sitosterolemia (10457).

SURGERY: African wild potato might affect blood glucose levels (11236). Theoretically, African wild potato might interfere with blood glucose control during and after surgical procedures. Tell patients to discontinue African wild potato at least 2 weeks before elective surgical procedures.

Dosage/Administration:

ORAL: For benign prostatic hyperplasia (BPH), African wild potato, containing 60 to 130 mg of beta-sitosterol divided into 2-3 doses daily, has been used (5327, 5328, 7198).

Editor's Comments:

None.

This monograph was last reviewed on 12/24/2012 and last updated on 12/15/2014. Monographs are reviewed and/or updated multiple times per month and at least once per year. If you have comments or suggestions on something that should be reviewed or included, please tell the editors. For details about our evidence-based approach, see our Editorial Principles and Process.