

The Longwood Herbal Task Force
(<http://www.mcp.edu/herbal/default.htm>) and
The Center for Holistic Pediatric Education and Research
Clinician Information Summary

WILD YAM

(*Dioscorea* species)

SUMMARY

Wild yam root is most often used to treat women's health problems such as dysmenorrhea and menopausal symptoms. Diosgenin, its primary chemical constituent, is structurally similar to cholesterol. In animal studies, diosgenin decreases cholesterol; it also stimulates mammary cell growth in ovariectomized rats. Pilot studies in humans support diosgenin's use to decrease serum triglycerides. There are no data supporting its use as a progesterone or DHEA substitute; data are insufficient to recommend it as a treatment for menopause. In high doses, it can cause nausea. Small amounts of synthetic progesterone are added to some wild yam products. Wild yam is not traditionally recommended during pregnancy, lactation or childhood. African species can cause hypoglycemia. Because of the numerous species of *Dioscorea* grown throughout the world and the variability in diosgenin content with different species, growing and manufacturing conditions, there is great product variation in the purity and potency of wild yam products.

POPULAR USES: Amelioration of menopausal symptoms, dysmenorrhea, gastrointestinal upset.

CHEMICAL CONSTITUENTS: Steroid sapononins: diosgenin and dioscin.

SCIENTIFIC DATA

In Vitro: Diosgenin inhibits cholesterol absorption, and inhibits amylase and chymotrypsin activity. It also inhibits growth of two different fungi and exhibits cytotoxic activity against cancer cell lines.

In Animals: Diosgenin has marked effects on lipid metabolism in animal studies, decreasing cholesterol absorption and tending to reduce hypercholesterolemia; it has synergistic effects

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with clofibrate. Diosgenin mitigates against indomethacin-induced intestinal inflammation. It also stimulates mammary cell growth in ovariectomized rats.

In Humans: Pilot data in elderly adults showed significant reductions in serum triglycerides and increases HDL levels, but no change in serum cholesterol with oral diosgenin. There are no clinical trials demonstrating progesterone-like or DHEA effects from wild yam. A small comparison study of 13 menopausal women given a multi-herb mixture that included wild yam reported nonsignificant improvements in symptoms in treated group compared with controls.

TYPICAL DOSES: Not standardized.

TOXICITY AND SIDE EFFECTS

Allergy in occupational exposure to wild yam.

Side effects: Nausea with high doses.

Interactions with other medications: Unknown.

Contraindications: Unknown.

Pregnancy and lactation: No safety studies.

Pediatric use: Not traditionally used in children. There are no clinical safety studies in this age group.

ADDITIONAL REFERENCES OR RESOURCES

- HOME: <http://www.mcp.edu/herbal/default.htm>
- Fleming, T. PDR for Herbal Remedies. Medical Economics. Montvale, NJ, 1998
- Blumenthal, M. The Complete German Commission E Monographs. American Botanical Council. Austin, TX, 1998