Estrolief ™

VitaAiD® Professional Therapeutics

Aids in body's metabolism of steroid hormones | VA-099 / VA-907

Key Features:

- **Estrolief** contains key components to aid in hormone metabolism and reduce the risk of hormone-sensitive, abnormal cell proliferation via multiple mechanisms:
  - **DIM** - the metabolite of Indole-3-Carbinol (I3C) from cruciferous vegetables - aids the estrogen metabolism by enhancing the estrone conversion to 2-OH-estrone (protective).
  - **SDG (Secoisolariciresinol diglucoside)** exerts an "amphiteric effect" to the estrogen receptors to reduce the harmful estrogenic effect of 4-OH & 16-OH estrones by occupying the receptors while alleviating menopausal symptoms.
  - **D-glucarate** has been shown to inhibit beta-glucuronidase and consequently reduce the amount of chelated toxins/ hormone metabolites recycled back into the blood stream.
- Formulated with essential coenzymes - folic acid, pyridoxine-5-phosphate, and B12 - to promote the steroids detoxification (ie. methylation, transamination)

Indications:

Conditions associated with estrogen-dominance, such as PMS, peri- and menopause syndrome, fibroid, and endometriosis.

Description:

3,3-Diindolylmethane (DIM)

Indole-3-carbinol (I3C) is a dietary indole found in Brassica cruciferous vegetables, such as cabbage, broccoli, and Brussels sprouts. The major in vivo product of I3C is 3,3-diindolylmethane (DIM).

DIM is the main mediator of the chemopreventive and chemotherapeutic effects of I3C. DIM induces the metabolism of estrone to form the estrogen metabolite **2-hydroxyestrone (2-OHE1; estrogen receptor antagonist)** at the expense of 16-alpha-OHE1 (estrogen receptor agonist).[1]

2-OHE1 is considered protective against abnormal cell proliferation; whereas, the production of 16-alpha-OHE1 can stimulate cell proliferation. Studies have demonstrated a correlation between a low urinary 2-OHE1/16-alpha-OHE1 ratio and breast cancer risk.[1]

DIM has been shown in clinical trials to modulate estrogen metabolism in subjects with history of breast cancer and thyroid proliferative disease.[1,8]

Secoisolariciresinol diglucoside (SDG) from Flax

Serum/urine enterolignans - Enterolactone (ENL) and enterodiol (END) - are suggested as potential biomarkers for breast cancer risk. Numerous epidemiological studies suggest that **high intake of lignan-rich food and high serum /urine levels of enterolignans are inversely associated with the risk of breast cancer.**

SDG - the richest estrogenic lignan in flax seeds - is t**he precursor of enterolignans with its conversion facilitated by gut microflora**. [2] ENL and END are hypothesized to possess anti- and weak estrogenic properties due to their structural similarity to estradiol, suggesting them as potential anticancer agents.

A meta-analysis of 21 studies (11 cohort studies and 10 case-controlled studies) involving over 225,000 subjects with data on their estimated dietary intake of lignans (ie. SDG) concluded that high exposure to enterolignans reduces the risk of breast cancer in both pre- and post-menopausal women. [3]

SDG have been demonstrated to reduce breast cancer risk through modulation of endogenous estrogen metabolism, as well as competitive inhibition with estrogen receptors.[4]

SDG has also been shown to be involved in the modulation of tumor growth factor-mediated signaling pathways suggesting that it can suppress the growth of both estrogen-receptor-positive (ER+) and estrogen-receptor-negative (ER-) tumors. [5]

D-Glucarate

During phase II detoxification, carcinogens, steroid hormones, and

Quantity: 56 Vegetarian Capsules

Ingredients (per capsule):

3,3'-Diindolylmethane (DIM)	54 mg
Calcium d-glucarate	215 mg
Flax Extract (*Linum usitatissimum*) (20% Secoisolariciresinol diglucoside)(seed)	100 mg
5-MTHF (from calcium 5-methylfolate)	350 mcg
Vitamin B6 (pyridoxine HCL & pyridoxal-5-phosphate)	35 mg
Vitamin B12 (methycobalamin)	250 mcg

Non-medicinal Ingredients: Silicon dioxide, L-leucine, hypromellose (capsule)

Suggested Use: Adults – Take 1 capsule, 2 times a day, or as directed by a healthcare practitioner. Consult a health care practitioner for use beyond 1 month.

other lipid-soluble toxins are conjugated with glucuronic acid in the liver (glucuronidation), and excreted with the bile.

D-glucarate helps to enhance the glucuronidation process **by inhibiting the activity of beta-glucuronidase** - an enzyme produced by colonic microflora that deconjugates glucuronidized hormones/toxins and allows them to be recycled back into the system. [6]

Elevated beta-glucuronidase activity is associated with an increased risk of hormone-dependent cancers, such as breast, prostate, and colon cancers. [7]

A Non-HRT Approach to the Early Stages of Perimenopause

The treatment approach to the early stages of perimenopause should include promoting progesterone secretion, lowering estrogen levels, and facilitating the metabolism of toxic catechol estrogens (4-OH and 16-OH) to the protective form (2-OH). Collectively, we can help to not only ease the perimenopause symptoms, but also reduce the risk of complications from high estrogen levels, such as fibroids, breast cancer, and endometrial cancer.

While bioidentical progesterone (P4) is widely used as the firstline treatment for perimenopause, it is not always the best approach in the early stage when the corpus luteum is still capable of maintaining adequate levels of progesterone. Rather, we should consider natural means to promote endogenous progesterone secretion and reduce elevated estrogen levels to bring balance to the estrogen-progesterone ratio.

Both the metabolism and detoxification of estrogen need to be facilitated for the entire menstrual cycle, with the help of DIM and d-glucarate, to reduce the overall estrogen dominance.

Supplementing high-dose Vitex (4-6g dried herb per day) in the luteal phase of early perimenopause can help increase the progesterone (P4) levels via its action on the hypothalamus-pituitary-ovary(HPO)-axis. **Combined with DIM, Vitex can help re-balance the estrogen-progesterone ratios and in turn reduce the flow as well as restore regular and normal-length cycles.**

Reference:

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5. Saggar JK, Chen J, Corey P, Thompson LU. The effect of secoisolariciresinol diglucoside and flaxseed oil, alone and in combination, on MCF-7 tumor growth and signaling pathways. Nutr Cancer. (2010). Vol 62(4):533-42.
6. Dwivedi C, Heck WJ, Downie AA, Larroya S, Webb TE. Effect of calcium glucarate on beta-glucuronidase activity and glucarate content of certain vegetables and fruits. Biochemical Medicine and Metabolic BIology (1990). 43: 83-92.
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