DIM Detox™

360° Medicine

Clinical Applications

- Support for Healthy Estrogen Metabolism in Females and Males
- Protection Against Toxic Effects of Xenoestrogens

DIM Detox™ represents a three-dimensional approach to the management of Estrogen Dominant conditions. Research has demonstrated that diindolylmethane (DIM), curcumin (from turmeric extract), and the patented black pepper extract, Bioperine® supports balanced estrogen metabolism. Estrogen-dominant conditions are linked to both environmental toxins such as those that mimic estrogen; as well as to the body's compromised metabolism of estrogens.

All 360 Medicine® Formulas Meet or Exceed cGMP quality Standards

Discussion

"DIM", (3,3' -diindolylmethane), is one of numerous metabolites formed when stomach acids break down indole 3 carbinol ("I3C"), a substance present in cruciferous vegetables. Although the formation of DIM from I3C is quite predictable, it is not certain which or how much of other metabolites' actions may be in the colon . Some of the I3C metabolites such as ICZ, a dioxin-like double molecule may be undesirable.[1]

DIM influences detoxification enzymes such as aryl hydrocarbon hydroxylase. Investigators identified that the inactivation of Akt and NF-kappaB activity also plays important roles in DIM-induced apoptosis in breast cancer cells.[2] Researchers studying androgen-dependent human prostate cancer cells found that DIM exhibits potent antiproliferative and antiandrogenic properties. They concluded, "DIM suppresses cell proliferation of LNCaP cells and inhibits dihydrotestosterone (DHT) stimulation of DNA synthesis".[3] Researchers who transplanted human breast carcinoma into athymic mice witnessed DIM's ability to inhibit angiogenisis and growth. In this study tumor growth was reduced because DIM caused G1 cell cycle arrest, down-regulated expression of cyclin-dependent kinase 2 and 6 (CDK2, CDK6), and upregulated expression of CDK inhibitor, p27 (Kipl).[4] DIM may act as a potent anti-oxidant that destroys free radicals. A study demonstrated the binding competition DIM exhibits against Dioxin.[5] Supplementing DIM has been shown to promote the formation of the healthy 2-OH-esterone, thus improving the ratio of 2 OH:16 OH estrogen.[6]

Curcumin is an antioxidant and modulates cell-signaling pathways to activate apoptosis.[7] Curcumin has been shown to have anti-angiogenic properties in vitro and in vivo.[8] The herb's ability to raise PPAR gamma, known to reduce tumor growth in certain malignancies such as prostate cancer, has been demonstrated. Curcumin also inhibits P-glycoproteins, providing a novel approach for reversing multi-drug resistance in tumor cells.[9]

Bioperine® is a patented form of piperine from black and long pepper plants. After a dose of 2 grams of curcumin human serum levels were either undetectable or very low. When the same dose was given along with 20 mg of piperine there was a 2000% increase in the bioavailability of the curcumin without adverse effects.[10]

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Supplement Facts

Serving Size: 2 Capsules
Servings Per Container: 60

	Amount Per Serving	%Daily Value
Curcumin (from tumeric extract)	500 mg	**
DIM (diindolylmethane)	150 mg	**
Bioperine®† (from piper nigrum extract)	5 mg	**

** Daily Value not established.
† Bioperine® is a registered trademark of Sabinsa Corp.

Other Ingredients: HPMC, stearic acid, silica and magnesium stearate.

Dosing:

One capsule twice a day.

References

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9. Zhou S, Lim LY, Chowbay B. Herbal modulation of P-glycoprotein. *Drug Metab Rev.* 2004 Feb;36(1):57-104. [PMID: 15072439]
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Additional References Available Upon Request.

Cautions

There is insufficient clinical data to warrant the safety of this formula during pregnancy or lactation.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

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