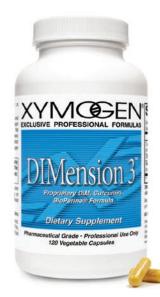
# DIMension 3<sup>™</sup>

### Proprietary DIM, Curcumin, BioPerine® Formula



Available in 120 capsules

#### Discussion

**DIM (3,3'-diindolylmethane)** is the stable, bioactive metabolite formed when stomach acid breaks down indole-3-carbinol (I3C), a sulfur-containing glucosinolate present in cruciferous vegetables.<sup>[1]</sup> Supplementation with DIM is preferred over I3C due to I3C's undesirable breakdown products, including the dioxin-like molecule indolo[3,2-b]carbazole (ICZ).<sup>[2]</sup> DIM has been found to support hormone metabolism and immune activity, and stimulate antioxidant and detoxification systems.<sup>[3]</sup> Curcumin and BioPerine<sup>®</sup> provide complementary support for DIM's role in healthy cell function.\*

**Support of Hormone Metabolism** Healthy metabolism of exogenous and endogenous estrogens can be pivotal for hormonal balance.<sup>[4]</sup> DIM promotes metabolism of estrogen into the favorable and protective 2-hydroxyestrone (2-OHE) metabolite versus production of 4-hydroxyestrone (4-OHE) and 16-alpha-hydroxyestrone (16-alpha-OHE) metabolites.<sup>[5]</sup> DIM's influence on 2-OHE production creates a more desirable ratio of 2-OHE to 16-alpha-OHE. Assessment of 2:16-alpha-OHE ratio appears to be useful in evaluating breast health.<sup>[6]</sup> DIM has been studied for its role in supporting prostate health as well, by reducing dihydrotestosterone binding to androgen receptors.\*<sup>[7,8]</sup>

**Support of Cell Function and Metabolism** Orchestration of metabolism by the thyroid gland is dependent on hormone balance. DIM was found to target proteolytic enzymes (MMP-2 and MMP-9), thus supporting the normal function and activity of thyroid cells in vitro.<sup>[9]</sup> Ongoing research reveals DIM's positive role in regulation of gene expression, protein production, and cell function. Downregulation of certain proteins (survivin, Bcl-2, and cdc25A) and upregulation of protective proteins (NRF2 and cyclin-dependent kinase inhibitor p21waf1) promoted healthy cell growth.<sup>\*[10,11]</sup>

Antioxidant and Detoxification Support DIMension 3 provides support for both antioxidant and detoxification systems which, in turn, support cellular function and integrity. Antioxidant activity is crucial to counteracting oxidative molecules normally produced during phase I

## **Clinical Applications**

- » Supports Healthy Estrogen Metabolism in Females and Males\*
- » Supports Detoxification of Xenoestrogens\*
- » Provides Support for Antioxidant Mechanisms\*

**DIMension 3™** represents a three-dimensional approach to supporting healthy estrogen metabolism. Research suggests that diindolylmethane (DIM), curcumin (from turmeric extract), and the patented black pepper extract BioPerine<sup>®</sup> support balanced estrogen metabolism.\*

Antioxidants

detoxification. Research on DIM suggests that it plays an important role in activating detoxification enzymes in human hepatocytes, further supporting biotransformation at a primary site in the body.\*[12]

**Curcumin** As the major curcuminoid found in turmeric, curcumin is valued for its promotion of antioxidant activity, support of metabolic detoxification, and modulation of cytokine production.<sup>[13]</sup> Research studying genotoxic estrogen metabolites suggests that curcumin's inhibitory effect on anchorage-independent growth and on CYP enzymes following dioxin exposure helps support healthy cell-life regulation in human embryonic kidney cells and normal prostate cells.\*<sup>[14]</sup>

**BioPerine** is a patented form of piperine, the main alkaloid from black and long pepper plants that has been found to effectively support the absorption of nutrients. After a dose of 2 g of curcumin, human serum levels of curcumin were either undetectable or very low. When the same dose was given along with 20 mg of piperine (4:1 ratio), there was a 2000% increase in the bioavailability of the curcumin without adverse effects.\*<sup>[15]</sup>

#### DIMension 3<sup>™</sup> Supplement Facts

Serving Size: 2 Capsules

	Amount Per Serving	%Daily Value
Turmeric Extract ( <i>Curcuma longa</i> )(rhizome) (95% curcuminoids)	250 mg	**
DIM (diindolylmethane)	150 mg	**
Black Pepper Extract ( <i>Piper nigrum</i> )(fruit)(BioPerine®)	2.5 mg	**

\*\* Daily Value not established

Other Ingredients: HPMC (capsule), turmeric powder, rice powder, silica, magnesium stearate, and stearic acid. BioPerine is a registered trademark of Sabinsa Corp. BioPerine is protected by US patents 5,536,506; 5,744,161; 5,972,382; and 6,054,585.

**DIRECTIONS:** Take two capsules daily, or as directed by your healthcare practitioner.

**DOES NOT CONTAIN:** Wheat, gluten, corn, yeast, soy, animal or dairy products, fish, shellfish, peanuts, tree nuts, egg, artificial colors, artificial sweeteners, or preservatives.

**CAUTIONS:** Consult your healthcare practitioner before use, especially if you are taking an anticoagulant. Keep out of reach of children. Avoid if allergic to any ingredient.

STORAGE: Keep tightly closed in a cool, dry place.



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\*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.