

# IndoleGard

## Promotes Healthy Estrogen\*

DIM (diindolylmethane) has been shown to help regulate and promote a more efficient metabolism of estrogen, and an optimal ratio of estrogen metabolites.\*

**IndoleGard** contains BioResponse DIM®, a unique formulation containing pure diindolylmethane, an indole. Indoles are plant compounds with health promoting properties, and are found in cruciferous vegetables such as broccoli, cabbage, cauliflower and Brussels sprouts.\* The phytochemicals in cruciferous vegetables have been shown to beneficially affect the body's hormonal and detoxification systems, and epidemiological studies support the health benefits of consuming these vegetables.\*



#54140  
120 vegetarian capsules

### Key Features

- Promotes healthy estrogen metabolism and balance\*
- Helps promote the conversion of estrogen to its beneficial, protective 2-hydroxyestrone metabolites and reduces production of genotoxic 16 $\alpha$ -hydroxyestrone\*
- Stimulates detoxification enzyme systems\*



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DIM is a major active acid-catalyzed derivative of one of the phytochemicals in cruciferous vegetables, indole-3-carbinol (I3C). DIM is thought to be responsible for the health effects of dietary I3C.\* IndoleGard is a stable, bioavailable form of DIM, made possible through a proprietary delivery system. The formula is co-solubilized with phosphatidylcholine, and microencapsulated in starch particles.

Research over the past thirty years has determined that healthy estrogen metabolism is closely linked to several healthy parameters in men and women, particularly some involving the breast, uterus, prostate and other reproductive tissue.\* Genetics, excess weight, poor diet and other lifestyle factors may result in an imbalance of estrogen metabolites. Xenoestrogenic compounds, such as organochlorine pesticides, can also significantly disrupt healthy estrogen metabolism.

These estrogen disruptors alter estradiol hydroxylation metabolism producing a higher ratio of the genotoxic 16 $\alpha$ -hydroxyestrone (16 $\alpha$ -OHE1) to the safer and weaker estrogenic 2-hydroxyestrone (2-OHE1).\* The genotoxic 16 $\alpha$ -OHE1 can potentially disrupt several normal cellular metabolic processes.\* DIM promotes the conversion of estrogen to its beneficial, protective 2-hydroxyestrone metabolites and reduces production of genotoxic 16 $\alpha$ -OHE1.\* Modulating these aspects of estrogen metabolism, particularly the production of 16 $\alpha$ -OHE1, may contribute to healthy aging.\*

The mechanisms for DIM's health benefits primarily involve the induction of mixed function oxidases and phase II detoxification enzyme systems by the binding and activation of the arylhydrocarbon receptor (AhR).\* Research using human breast cells (MCF-7) has shown that the binding of DIM<sup>®</sup> to the arylhydrocarbon receptor can result in rapid formation of the nuclear AhR complex and consequent induction of gene expression and synthesis of cytochrome P450 detoxification enzyme (CyP450A1).\* DIM<sup>®</sup> consequently produces increased levels of the protective hydroxylated estrogen 2-OHE1.\* Some have suggested that DIM may also positively affect cellular signaling pathways.\*

It is becoming increasingly apparent that DIM may provide an important mechanism for supporting successful aging despite the increasing levels of xenoestrogenic compounds in our modern world.\*

#### References:

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## Supplement Facts

Serving Size 4 Capsules  
 Servings Per Container 30

Amount Per Serving	% Daily Value
BioResponse DIM <sup>®</sup>	300 mg †
(A proprietary Diindolylmethane complex - starch, DIM (25% min.), vitamin E (as tocophersolan), phosphatidylcholine (sunflower), silica)	
† Daily Value not established.	

Other ingredients: Hydroxypropyl methylcellulose, microcrystalline cellulose, rice hull concentrate, gum arabic, sunflower oil.

**Suggested Use:** As a dietary supplement, 2 to 4 capsules one or two times daily, or as directed by a healthcare practitioner.

Do not use this product if you are pregnant, lactating, or using birth control pills. Persons taking prescription medications should consult a healthcare professional before use. Harmless changes in urine color may occur. Keep out of reach of children.

BioResponse DIM<sup>®</sup> is a proprietary, enhanced bioavailability complex containing diindolylmethane licensed from BioResponse, L.L.C., Boulder, Colorado.\*