



# DIM

## CLINICAL APPLICATIONS

- Supports Estrogen Balance
- Supports Proper Estrogen Metabolism for Women and Men
- Improves Estrogen Detoxification Pathways
- Provides Cellular Antioxidant Support for DNA Stability



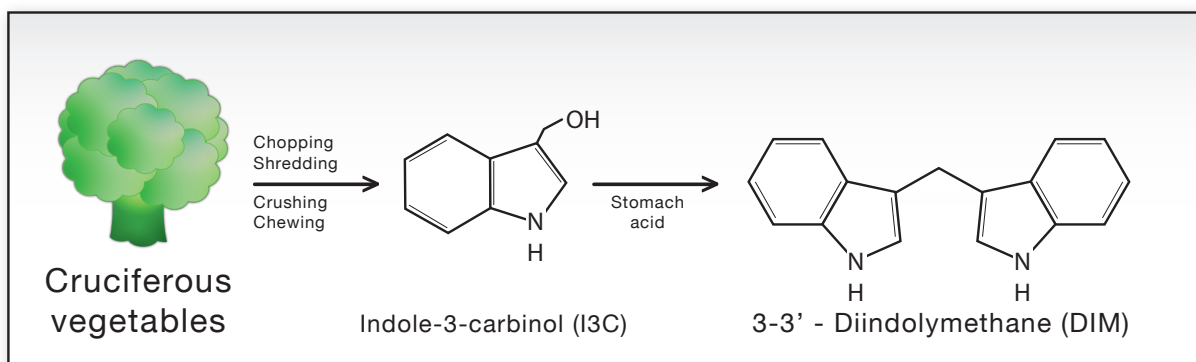
This product is a targeted supplement that combines the synergistic benefits of the cruciferous vegetable metabolites Indole-3-carbinol (I3C) and diindolymethane (DIM) to support proper estrogen metabolism. Formulating I3C and DIM together creates the ideal combination of beneficial metabolites that work together to support estrogen balance, breast and prostate health.

### The Health Benefits of Cruciferous Vegetable Metabolites<sup>†</sup>

Many of the health benefits derived from eating cruciferous vegetables (cabbage, brussels sprouts, broccoli, etc.), especially those shown to be beneficial for breast and prostate health, are thought to be derived from the group of secondary metabolites known as glucosinolates. When these vegetables are cut, crushed or chewed, the actions of the enzyme myrosinase (released from the cells) hydrolyses these glucosinolates into other compounds. For instance, glucosinolates from broccoli and brussel sprouts readily convert into I3C when consumed. I3C can then be further converted via stomach acid into other health promoting compounds, including DIM. These compounds have generally been thought to be responsible for the various cellular activities that lead to hormone health.

### Overview

Estrogen collectively refers to the female hormones estradiol, estrone and estriol. Hormones have important functions in every area of the body. They are chemical messengers that interact with cells all over the body (especially tissues that are more sensitive to them, including breast and prostate tissues.). The most important message they deliver is to grow, divide, and multiply. For this reason, hormones are critically important in human development and tissue repair. Supporting proper estrogen synthesis, metabolism and detoxification is essential for proper hormonal balance. Depending on how estrogen is metabolized it can result in different metabolites, each with individual biological activity. By keeping hormones in balance and ensuring the body is able to process hormones properly, cruciferous vegetable metabolites (such as I3C and DIM) work together to reduce hormone overload and maintain cellular health. Current data on I3C and DIM, suggests that these phytonutrients have strong potential for supporting breast, cervical, uterine and prostate health.<sup>1-4</sup> I3C is a naturally occurring compound derived from cruciferous vegetables such as broccoli, brussel sprouts and cabbage. Together, I3C and DIM promote the creation of the more favorable and protective 2-hydroxyestrone (2-OHE) metabolite versus production



of 4-hydroxyestrone (4-OHE) and 16-alpha-hydroxyestrone (16-alpha-OHE), metabolites which can overstimulate cells and create free radicals that cause DNA damage.<sup>5</sup> The influence of I3C and DIM on estrogen metabolism creates a more desirable ratio of 2-OHE to 16-alpha-OHE. This assessment of 2:16 alpha-OHE ratio has been used to evaluate breast health. With this in mind, this product includes targeted doses of both I3C and DIM in one capsule a day dosing to make daily balancing of hormones easy and convenient.

### I3C†

Indole-3-carbinol (I3C) is a naturally occurring compound found in numerous cruciferous vegetables, such as broccoli, cauliflower, kale and cabbage. Following ingestion of I3C, the body converts it to several different metabolites, one of which is diindolylmethane (DIM). Both of these compounds, as well as many other I3C metabolites, have been shown to impact metabolic shifts and cellular activities for improved health outcomes. I3C has also been shown to temper estrogen signals by competing for binding sites and inhibiting the activity of estrogen receptors.<sup>6-15</sup> A study published in the Journal of Nutrition unveiled evidence that I3C supports healthy cellular function related to estrogen metabolism.<sup>16</sup>

### DIM†

Diindolylmethane (DIM) is a phytonutrient and plant indole also found in cruciferous vegetables with potential for enhancing proliferation of healthy cells and cellular activities. As a dimer (formed chemical structure of two substances) of indole-3-carbinol, diindolylmethane (DIM) promotes beneficial estrogen metabolism in both sexes supporting the formation of healthy estrogen metabolites and enhancing the potential for greater antioxidant activity.<sup>17-19</sup>

### Dosage

1 capsule per day or as recommended by your health care professional.

### Does Not Contain

Wheat, gluten, corn, yeast, animal or dairy products, fish, shellfish, peanuts, tree nuts, egg, artificial colors, artificial sweeteners or preservatives.

### Cautions

Do not consume this product if you are pregnant or nursing.

V2		
<b>Supplement Facts</b>		
Serving Size 1 Capsule		
Servings Per Container 30 & 60		
1 capsule contains	Amount Per Serving	% Daily Value
Vitamin E (from 50 IU as d-Alpha Tocopherol Succinate USP)	33.5 mg	223%
I3C (Indole-3-Carbinol)	200 mg	*
DIM (Diindolylmethane)	100 mg	*
* Daily Value not established		



## References

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