# NutriDyn<sup>®</sup>

# Calcium D-Glucarate Plus

Support for Healthy Hormone Balance\*

Calcium D-Glucarate Plus is a premium nutritional supplement to support healthy estrogen metabolism and hormonal balance.\*

Estrogens are the principal female sex hormones responsible for the growth and maturation of reproductive tissues. These hormones are also present in healthy males at lower concentrations. Three major estrogens are produced naturally in the body, including estradiol, estrone, and estriol.

When estrogen (particularly estradiol) levels are too high or too low, problems arise in both males and females. Symptoms of irregular estrogen levels include low sex drive, weakened immune function, irritability, fatigue, weight gain, and many others.<sup>1,2,3</sup>

Read on to learn more about how Calcium D-Glucarate Plus works to support healthy hormonal balance.\*

# How Calcium D-Glucarate Plus Works

Physiologically, estradiol has the strongest estrogenic effects in the human body; it is slightly more potent than estrone and significantly more potent than estriol. Animal studies have demonstrated that calcium d-glucarate lowers estradiol levels by upwards of 25%.<sup>4</sup>

Research contends that calcium D-glucarate supplementation serves as an efficacious slow-release source of glucuronolactone, which appears to inhibit the actions of the enzyme beta-glucuronidase.<sup>•5</sup> Beta-glucuronidase is produced by bacteria in the colon of humans and is responsible for the breakdown of certain carbohydrates. However, excessive activity of this enzyme has been shown to decrease the rate at which estrogens are removed from the body.

Therefore, inhibiting beta-glucuronidase activity (as seen when supplementing with calcium D-glucarate) may help promote healthy levels of estradiol and estrogen precursors in the body by supporting the rate at which they're metabolized.<sup>+</sup>

## **Calcium D-Glucarate Plus Supplementation**

In summary, research suggests Calcium D-Glucarate works to support:

- Healthy estrogen metabolism<sup>+</sup>
- Healthy hormonal balance\*
- Proper conversion of androgen to estrogen<sup>+</sup>
- Mood and well-being<sup>•</sup>
- Energy levels

**References** 



### Form: 60 Capsules

Serving Size: 1 Capsule

Ingredients	Amount	% <b>DV</b>
Calcium (as calcium D-glucarate)	72 mg	6%
Calcium D-Glucarate	600 mg	**

#### **Other Ingredients:**

Vegetable capsule, microcrystalline cellulose, vegetable magnesium stearate, silicon dioxide.

#### **Directions:**

Take one capsule daily with water as a dietary supplement, or as directed by your healthcare practitioner.

**Caution:** If you are pregnant, nursing, or taking medication, consult your healthcare practitioner before use. Keep out of reach of children.



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.

#### **References:**

- 1. Verthelyi, D. (2001). Sex hormones as immunomodulators in health and disease. International immunopharmacology, 1(6), 983-993.
- 2. Toppari, J., Larsen, J. C., Christiansen, P., Giwercman, A., Grandjean, P., Guillette Jr, L. J., ... & Leffers, H. (1996). Male reproductive health and environmental xenoestrogens. *Environmental health perspectives, 104*(Suppl 4), 741.
- 3. Rohr, U. D. (2002). The impact of testosterone imbalance on depression and women's health. Maturitas, 41, 25-46.
- 4. Hall, D. (2001). Nutritional influences on estrogen metabolism. Applied nutritional science reports, 1, 1-8.
- 5. Lampe, J. W., Li, S. S., Potter, J. D., & King, I. B. (2002). Serum -glucuronidase activity is inversely associated with plant-food intakes in humans. *The Journal of Nutrition, 132*(6), 1341-1344.