

## Used to promote healthy estrogen levels and relieve premenstrual complaints

Rx Balance™ Female Balance is an exceptional formula that combines therapeutic doses of four proven substances that help to balance hormones, supporting women's health and provide safe and effective relief from premenstrual complaints.

### Ingredients: Medicinal

Each capsule contains:

Kudzu ( <i>Pueraria lobata</i> ) root extract (std. to 40% isoflavones)	250 mg
Tribulus ( <i>Tribulus terrestris</i> ) stem and fruit extract (std. to 45% saponins)	250 mg
Chasteberry ( <i>Vitex agnus castus</i> ) fruit extract (std. to 0.5% agnusides)	100 mg
BioResponse DIM®	75 mg
Providing:	
Diindolymethane	18.75 mg
Vitamin E (d-alpha-tocopheryl succinate)	7 IU / 4.67 mg AT
Phosphatidylcholine (from soy)	3.125 mg

### Ingredients: Non-medicinal

Cellulose, corn starch, stearic acid, silicon dioxide, hypromellose.

This product does not contain dairy, egg, gluten, shellfish, sulfites, or artificial colours, flavours or preservatives.

### Recommended Use

Used to promote healthy estrogen levels and relieve premenstrual complaints.

### Recommended Dose

Adults take 2 capsules daily. For use beyond three months, consult a health care practitioner.

### Risk Information

Do not use if pregnant or breastfeeding. Consult a health care practitioner if you experience headaches, nausea, gastrointestinal distress, allergic skin reaction, menstrual disorders, or acne. Harmless changes in urine colour may occur with the use of this product. Keep out of reach of children.

### Interactions with Drugs/Supplements

Consult a health care practitioner before using if you are using prescription medication, including dopamine-receptor antagonists and hormone replacement therapy, including oral contraceptives.

### Dosage Form Description

Vegetable capsule

### Packaging

Available in bottles of 60 vegetable capsules.

### Stability

Shelf life of 3 years when stored in a cool, dry place.

### Ingredient Description

RxBalance™ Female Balance is an exceptional formula that combines therapeutic doses of four proven substances to support women's health and provide safe and effective relief from premenstrual complaints.

The kudzu root extract in this formula is rich in isoflavones that enhance the production of the "good" 2-hydroxyestrones in estrogen metabolism. Kudzu root also aids the DIM in this formula in its beneficial actions on estrogen metabolism.

Tribulus (*Tribulus terrestris*) complements this formula by providing an androgenic component so that the formula is hormonally balanced.

Chasteberry (*Vitex agnus castus*) has long been known in Europe as an important remedy for controlling and regulating the female reproductive system and has been used to normalize monthly periods and treat amenorrhea and dysmenorrhea, as well as ease menopausal complaints and aid in the birth process. Chasteberry helps to relieve prolactin-associated symptoms of PMS such as restlessness and cyclical mastalgia (breast pain). The therapeutic effects of chasteberry are primarily attributed to its indirect effect on various neurotransmitters and hormones.

BioResponse DIM® (diindolymethane) is a trademarked microencapsulated preparation that contains diindolymethane, vitamin E, and phosphatidylcholine, co-dried to enhance DIM availability. DIM is a plant indole found in cruciferous vegetables that helps to balance estrogen and testosterone. Vitamin E (d-alpha-tocopheryl succinate) acts as a potent antioxidant to protect the body from free radical damage. Phosphatidylcholine is a phospholipid and a major constituent of lecithin. The hydrolysis of phosphatidylcholine by pancreatic phospholipase A2 appears to play a direct role in regulating the absorption of certain lipids and lipid-soluble vitamins.

### Reason for Combination

Premenstrual syndrome (PMS) is a complex combination of psychological symptoms, including irritability, mood swings, aggression, tension, anxiety, and depression, and somatic changes such as fluid retention, cramps, breast tenderness, headache, bloating, backache, and weight gain. PMS has been linked to abnormally high levels of estrogen, especially if the symptoms tend to disappear when menstruation begins. Rx Balance™ Female Balance helps to balance hormones, supporting women's health and helping to relieve PMS symptoms.

Kudzu root extract contributes to the beneficial actions of this formula on estrogen metabolism. It contains the

isoflavones puerarin, daidzin, daidzein, genistin, and genistein, which have both estrogenic and antiestrogenic activity, similar to selective estrogen receptor modulators, and may have additive or synergistic effects with one another as well.

The Tribulus provides hormonal balance in this formula due to its androgenic activity. The saponins in Tribulus extract are known to be effective in reducing hot flashes in menopausal women.

Chasteberry (*Vitex agnus castus*) has a progesterone-like effect and has been documented to relieve PMS. It has been found to inhibit prolactin via dopaminergic activity on the anterior pituitary, improving premenstrual mastalgia (breast pain) and other PMS symptoms.

BioResponse DIM® is the primary ingredient in this formula that is responsible for healthy estrogen metabolism by favouring the formation of the 2-hydroxy estrogen metabolite. DIM is the major active metabolite of indole-3-carbinol, thought to be one of the agents responsible for the cancer-protective properties of cruciferous vegetables. In stomach acid, indole-3-carbinol is unstable and readily converted to a variety of compounds, including diindolymethane. DIM has partial estrogen receptor agonistic and antagonistic activity and encourages the metabolism of risky estrogens that could lead to conditions such as fibroids and cancer. The inclusion of phosphatidylcholine and vitamin E greatly increase the absorption and bioavailability of DIM.

### Research Synopsis

1. In a Chinese study in 2005, kudzu root extract was separated into four fractions according to polarity. All but the water subfraction showed clear estrogenic activity, with potencies in the range of  $10^{-3}$  to  $10^{-1}$  g/L. The crude extract and its sub-fractions were further analyzed by high-performance liquid chromatography (HPLC) to correlate the activity of the active components. Bioassay and chemical analysis showed that theoretical estrogenic activity expressed as equivalent to 17beta-estradiol concentration.<sup>12</sup>
2. The saponins, such as diosgenin and protodioscin, in *Tribulus terrestris* have shown to be androgenic in animal and in vitro studies. Preliminary research suggests the protodioscin constituent in this herb increases levels of testosterone, luteinizing hormone, DHEA, and dihydrotestosterone.<sup>4,5</sup>
3. At therapeutic doses, *Vitex agnus castus* acts as a dopaminergic antagonist; that is, it binds but doesn't stimulate dopamine receptors, and thus helps to relieve feelings of jitteriness and restlessness. The dopaminergic properties of chasteberry also inhibit the secretion of prolactin 4, thus improving premenstrual mastalgia due to hyperprolactinemia.<sup>1,3</sup> A prospective, open, noncomparative, monocentre study reported in 2006 showed a consistent decrease in the severity of PMS symptoms during treatment with an extract of *Vitex agnus castus*.<sup>6</sup> A systematic review in 2008 of data from randomized and nonrandomized studies on the efficacy and safety of *Vitex agnus castus* concluded that this herb can be considered as an efficient alternative phytotherapeutic agent in the treatment of cyclical mastalgia.<sup>3</sup>
4. An intervention study investigated the efficacy and safety of absorbable diindolymethane BioResponse DIM® in cyclical mastalgia. Otherwise healthy premenstrual women with

cyclical mastalgia were given absorbable diindolymethane (DIM) or placebo for consecutive three-month periods in a randomized, double-blind, crossover study. Breast symptoms were monitored using daily entries on a "breast pain diary" as the assessment tool. Urine and blood samples were collected to confirm safety and the impact of absorbable DIM on estrogen metabolism. Results showed clinical improvement with absorbable DIM. Improvement was not seen with placebo. A statistically significant reduction in duration of breast pain, severity of pain, swelling, and soreness accompanied absorbable DIM use. In addition, absorbable DIM was shown to increase the ratio of 2-hydroxy to 16-hydroxy estrone metabolites in urine. Supplementation with absorbable DIM was found to be an effective intervention for cyclical mastalgia.<sup>7,10</sup>

### References

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PRODUCT CODE: 403 195 - 60 Vegetable Capsules

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