

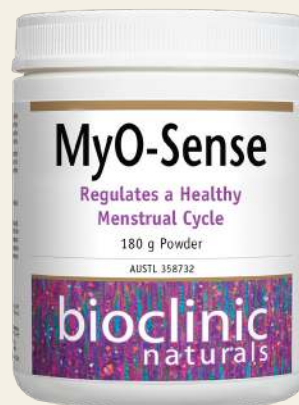
MyO-Sense

Regulates a Healthy Menstrual Cycle

Available in 180 g Powder

MyO-Sense is formulated to support female reproductive health, maintain healthy reproductive hormones and a healthy menstrual cycle. MyO-Sense provides therapeutic doses of nutrients that may help support healthy preconception in females and maintain healthy blood glucose levels. It also provides antioxidant and anti-inflammatory support.

- Specifically formulated to provide nutritional support for female reproductive health and a healthy menstrual cycle without herbal extracts.
- Provides 4 g/day of myo-inositol to support healthy oocyte maturation and reproductive system health.
- Delivers 200 micrograms of chromium per day to support healthy glucose metabolism.
- Contains quercetin with LipiSpense® Technology for enhanced bioavailability.
- Flavourless powder for convenient dosage and improved compliance.



AUSTL - 358732

Active Ingredients

Each scoop (3 g) contains:

Inositol	2 g
Quercetin dihydrate (LipiSpense® Quercetin CWD 90)	250 mg
Levomefolate calcium	216.54 micrograms
Equiv. levomefolic acid	200 micrograms
Mecobalamin (co-methylcobalamin) (vitamin B12)	1.5 micrograms
Chromium (picolinate, chloride)	100 micrograms
Selenium (selenomethionine)	75 micrograms
Zinc (citrate dihydrate)	5 mg
Colecalciferol (vitamin D3)	12.5 micrograms

Key Features & Benefits

MyO-Sense has been specifically formulated without herbal extracts to provide nutritional support for a healthy menstrual cycle, with key ingredients including myo-inositol, quercetin and chromium. Therapeutic doses of these nutrients support biological mechanisms of action that specifically target underlying hormonal and metabolic

imbalances known to adversely influence healthy reproductive hormone levels and activity, oocyte maturation, conception and pregnancy outcomes in females.

MyO-Sense contains quercetin LipiSpense® Technology. LipiSpense® is an advanced cold water dispersion technology which allows lipophilic active ingredients with

otherwise relatively low bioavailability and poor solubility in water, to be easily dispersed in cold water, thereby increasing their bioavailability and uptake in the body.

Hormonal Imbalances - Aetiology, Pathophysiology and Comorbidities

Current knowledge indicates that imbalances in female menstrual cycles and associated conditions, are a result of aetiology and pathophysiology, involving interactions between multiple genetic, metabolic, endocrine, environmental (prenatal, postnatal) and lifestyle factors across the female lifecycle.¹⁻⁵

These factors, via varying mechanisms, can lead to physiological imbalances in androgens (synthesis, transport and regulation); sex-hormone binding globulin synthesis; reproductive hormones (follicle stimulating (FSH), luteinising and anti-mullerian hormones); insulin (metabolism, receptor binding or signalling); cortisol; reactive oxygen species levels and activity; inflammation (C-reactive protein, tumour necrosis factor- α , interleukin-8) and growth factors (inhibin).^{1-3,6-17}

Locally this disrupts the maturation of follicles and oocytes into dominant follicles, resulting in ovarian dysfunction and altered morphology, menstrual irregularities, sub- and infertility, impaired embryo quality and pregnancy complications.^{1,2,6,10} Systemic consequences include comorbidities such as obesity, dyslipidaemia, metabolic syndrome, insulin resistance, type 2 diabetes mellitus, high homocysteine levels and cardiovascular disease.^{2-4,10,16,17,33}

Nutritional Support

Along with appropriate dietary, lifestyle and environmental support, key nutrients can beneficially target hormonal and metabolic imbalances and associated conditions that result from these.

Myo-inositol

The polyol (sugar) myo-inositol (MI) is the most concentrated form of inositol in the body.^{1,18,19} Endogenous MI is synthesised following isomerisation of glucose-6-phosphate to form myo-inositol 1-phosphate and then dephosphorylated into free MI.^{20,21} Intracellularly, MI is then converted to inositol triphosphate (via phosphatidyl-myoinositol), which acts as a second messenger for insulin and FSH.^{1,18,19} Such second messenger mechanisms underlie the biological effect of MI on ovarian FSH signalling, insulin signalling and sensitivity, cellular glucose metabolism (transport, uptake, utilisation), glycogen synthesis and adipose tissue-derived free fatty acid release.^{1,18}

Also relevant to the significant impact of MI on ovarian health is its conversion into D-chiro-inositol by the epimerase enzyme, with rates varying in different body tissues based on physiological requirements and hormonal influences (e.g. MI/DCI ratio in thecal cells is 20:1 vs 100:1 in follicular fluid).^{1,18,22,23} Insulin has a significant influence on the conversion rate of MI to DCI, with elevated systemic insulin levels overstimulating ovarian epimerase activity, thereby upregulating and downregulating DCI and MI synthesis, respectively. This results in impaired FSH signalling and elevated androgen synthesis, which consequently exacerbates elevated insulin levels, increases free fatty acid concentrations and promotes inflammation.^{22,23}

It is via the improved ovarian MI/DCI ratios and insulin and FSH second messenger actions that optimal MI levels can significantly and positively influence oocyte maturation and quality and consequently, ovulation, menstrual cyclicity, fertility and pregnancy outcomes.^{1,19,22,24}

Folic Acid

Healthy folic acid levels are important for B12 activation, maintaining healthy homocysteine levels and healthy pregnancy outcomes.²⁵ Optimal endogenous levels of both MI and folic acid has been positively associated with lower AMH and glucose levels, healthy follicular maturation, oocyte quality, fertilisation and embryo quality.^{24,26,27}

Quercetin

In support of healthy glucose metabolism, quercetin has been shown to enhance insulin signalling, sensitivity and secretion, promote pancreatic beta-cell proliferation and increase glucose transporter (GLUT) activity.⁹ Quercetin also has significant antioxidant and anti-inflammatory activity, and further, promotes healthy hormonal balance (by positively modulating androgens, LH, oestradiol and progesterone levels), follicular cell morphology (increasing the concentration of normal follicles) and healthy folliculogenesis and luteinisation activity.⁹

By acting on these key underlying metabolic imbalances, quercetin may help improve clinical characteristics of including impaired insulin sensitivity, oxidative stress, inflammation, menstrual cyclicity and fertility.⁹

Chromium

Chromium plays a central role in supporting healthy glucose and insulin metabolism. Specifically, chromium is involved in carbohydrate metabolism, promoting insulin-mediated glucose transport into cells, increasing insulin receptor concentrations and activity and enhancing pancreatic beta-cell sensitivity.²⁵ These processes underlie its beneficial influence on fasting plasma glucose, insulin metabolism levels and sensitivity, lipid profiles, antioxidant activity and free testosterone levels.²⁸⁻³⁰

Selenium

The essential mineral selenium has significant antioxidant properties which underlie its important role in maintaining healthy reproductive function.^{5,31} Low selenium concentrations are commonly attributed to the inhibitory effect of elevated androgens on selenium binding protein 1 (SBP1) gene expression and systemic inflammation.^{5,31,32} Increasing selenium concentrations has been associated with upregulated gene expression of insulin and glucose metabolic genes (PPAR- γ and GLUT-1) and pancreatic beta-cells, and downregulation of inflammation (NF- κ B, TNF- α and IL-1/18) and oxidative stress.^{5,31}

Vitamin D

Serum vitamin D levels, vital for normal reproductive health are associated with impaired insulin sensitivity, systemic inflammation, elevated AMH levels (impairing folliculogenesis) and hyperandrogenemia.^{1,34-36} Conversely, normal vitamin D concentrations are required for healthy glucose metabolism, insulin secretion, ovulatory function, oestrogen and progesterone synthesis, folliculogenesis, menstrual regularity and AMH levels.^{1,35}

Zinc and B12

Key physiological functions of zinc include acting as a cofactor for antioxidant enzymes (catalase and superoxide dismutase) and involvement in insulin synthesis, secretion, storage, signalling and function.^{32,36} Some medications may contribute to low B12 levels, adversely influencing homocysteine levels due to B12's essential role in homocysteine metabolism.^{33,37,38}

**References available on request.*

Directions for use: Adults: 2 scoops per day or as directed by a health care practitioner.

WARNING: If symptoms persist, talk to your health care practitioner.



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