About me!



Malisa Carullo, MSc, ND

Senior Manager, Medical Information & Safety, Metagenics North America

Dr. Malisa Carullo holds a Doctorate in Naturopathic Medicine from the National University of Health Sciences in Chicago and a Master of Science in Biology from the University of Ottawa, specializing in genetics and molecular evolution. She is dedicated to biological medicine, focusing on chronic disease treatment, healthy aging, and the integration of naturopathic and sports medicine, with special interests in endocrinology and chronic infections.

As Senior Manager of Medical Information and Safety at Metagenics, Dr. Carullo leads the clinical services support team, ensuring healthcare providers have access to accurate, evidence-based product information to enhance patient safety and efficacy. Her role involves reviewing clinical data, managing safety protocols, and advancing practitioner education in integrative health solutions. Dr. Carullo's work is instrumental in shaping Metagenics' commitment to scientific rigor and clinical application, supporting both practitioner success and patient wellness through integrative medicine.

The Role of Saffron, Chromium Picolinate, and Licorice Extract in Managing Mood, Sleep, **Digestion, and Food Cravings**



Malisa Carullo, MSc, ND

Senior Manager, Medical Information and Safety Metagenics





Learning Objectives



Understand the mechanisms by which saffron, chromium picolinate, and licorice extract influence metabolic function, mood, and digestive health.



Review clinical research demonstrating the effectiveness of these compounds in managing mood, sleep quality, digestive health, and food cravings.

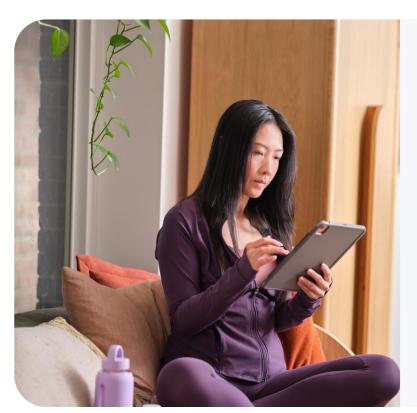


Learn practical strategies for integrating these natural compounds into patient care plans.





Women's Health



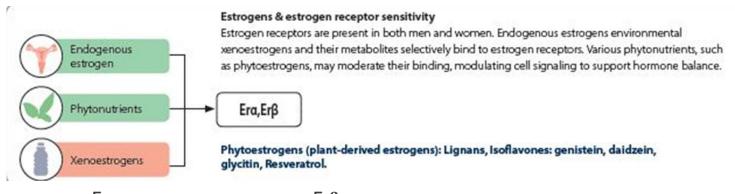
- Women's health is influenced by hormonal fluctuations, metabolic processes, and neurochemical signaling, impacting:
 - Mood and stability
 - Sleep quality
 - Digestive health
 - Metabolic function
- Conditions such as stress-related mood disturbances, insomnia, gastrointestinal discomfort, and metabolic imbalances are common and can have long-term health consequences if not addressed.

Estrogen and Women's Health

		Reproductive Years Meno		opausal Transition	Postmenopause		
Average Age	1 st Period: 9-15	16-30	31-42	Early Transition: 40s	Late Transition: late 40s— early 50s	Final Period: 51-55	50s and beyond
Menstrual Cycles	Variable	Regular	Regular	Cycle length vary increasingly	2 or more skipped periods	Amenorrhea	Amenorrhea
Signs and Symptoms	Dysmenorrhea Cramping/pain in lower abdomen or pelvic area, bloating, diarrhea, constipation, nausea, vomiting, unusual fatigue, headaches, breast pain/swelling, scanty blood flow, missed work	Pain lasts longer; m lasts longer; pain w away as it continue endometriosis, uteri Premenstrual synd ending within 4 day Physical, Mental, ar Over 300 symptom tension, depression headache fatigue, o	as previous nenorrhea (31 yrs-menopause): r; may begin a few days before menses; n worsens as menses continues; may not go nues, may be caused by other problems like terine fibroid, ovarian cysts vndrome (PMS): 5 days before menstrual cycle days after period starts , and Emotional oms: most commonly assessed are irritability, ion, bloating, painful and sore breasts, ie, changes in sexual desire vsphoric disorder (PMDD): between 1 and		Hot flashes, irritability, sleep disturbances, bone loss begins	Same as previous	Vaginal dryness, hot flashes can persist (for some into their 60s and 70s); bone loss progresses, etc.
		Fertility progressively declining					



Estrogen Signaling and Binding



Erα

Increases proliferation

Excitatory

Proinflammatory

Increases alycolysis

Erβ

Down regulates ER- α activation

Antiproliferative

Estrogen detoxification

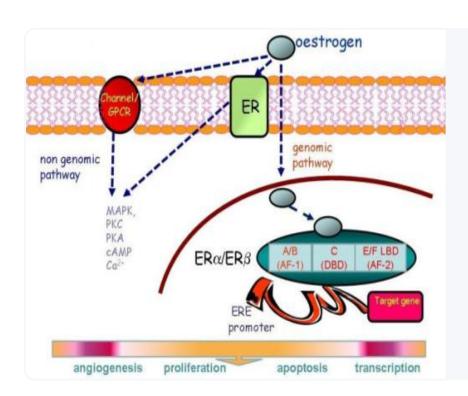
Anxiolytic

Anti-inflammatory

Increases BDNF

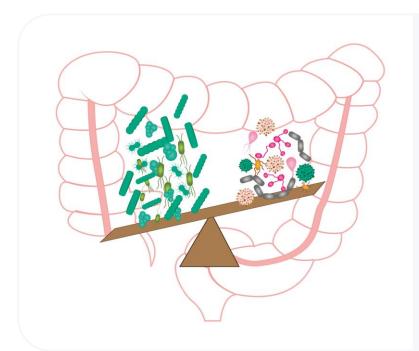
Xenoestrogens (EDCs), such as Bisphenol A, can bind to both $\text{Er}\alpha$ and $\text{Er}\beta$. Many phytoestrogens have a higher binding affinity for $\text{Er}\beta$.

Estrogen and Metabolic Regulation



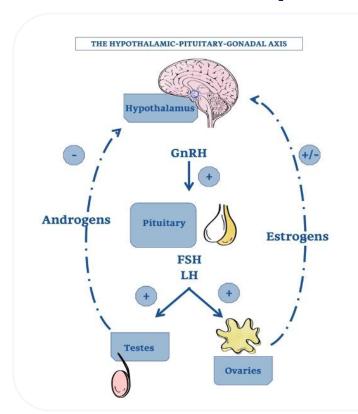
- Estrogen (E2) acts via ERα and ERβ receptors in metabolic tissues (liver, adipose, muscle, pancreas, hypothalamus).
- Enhances insulin sensitivity, suppresses hepatic gluconeogenesis, and modulates lipid metabolism.
- Menstrual cycle: Insulin sensitivity fluctuates—greater during follicular phase (high E2) vs. luteal phase.
- Menopause: Decline in E2 → ↑
 visceral adiposity, ↓ mitochondrial
 efficiency, ↑ risk of metabolic
 syndrome.

Hormonal Interactions with GI Function



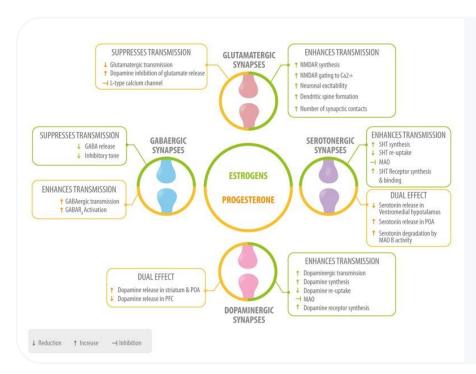
- Progesterone (P4): Relaxes smooth muscle, reduces gastric emptying, and slows GI motility (luteal phase constipation).
- Cortisol: Chronically elevated levels alters gut barrier function, microbiota diversity, and increases visceral hypersensitivity.
- Estrogen: Modulates gut permeability and diversity via ERβ in intestinal epithelium.
- Conditions: Irritable bowel syndrome (IBS), particularly in females, correlates with hormonal fluctuations and stress-linked dysregulation of the gut-brain axis.

HPO Axis and Reproductive Hormone Dynamics



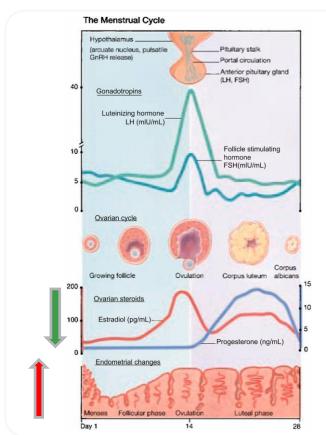
- Pulsatile GnRH → stimulates FSH and LH from anterior pituitary.
- FSH promotes follicular growth; LH triggers ovulation via theca cell androgen production and granulosa cell estrogen synthesis.
- Estrogen exerts positive/negative feedback on GnRH depending on cycle phase; progesterone stabilizes the luteal phase.
- Life stages:
 - Puberty: HPO axis activation
 - Reproductive years: Cyclical function
 - Menopause: Ovarian senescence → low E2/P4, ↑ FSH/LH

Estrogen and Neurotransmitter Modulation



- Estrogen upregulates serotonin synthesis (via tryptophan hydroxylase),
 5-HT2A receptor density, and serotonin transporter (SERT) function.
- Estrogen enhances dopaminergic tone in mesolimbic pathway and modulates GABAergic inhibition via allopregnanolone (progesterone metabolite).
- Progesterone's action via GABA-A receptor modulation → anxiolytic effect during luteal phase (low levels linked to PMDD symptoms).

Hormonal Milestones and Affective Disorders



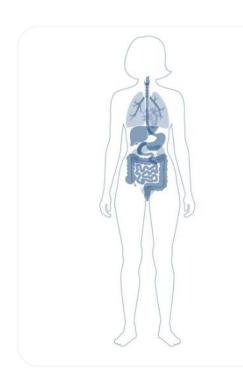
- Perimenopause: Fluctuating estrogen → serotonergic instability $\rightarrow \uparrow$ risk of depression, anxiety.
- Postpartum: Rapid drop in E2/P4 postpartum → dysregulation of HPA axis \rightarrow postpartum depression risk.
- PMDD: Neurosteroid withdrawal sensitivity hypothesis—abrupt decline in allopregnanolone \rightarrow altered GABA-A receptor plasticity.
- Flevated cortisol blunts brainderived neurotrophic factor (BDNF) expression and hippocampal neurogenesis → mood dysregulation under chronic stress

Circadian and Infradian Rhythms in Women



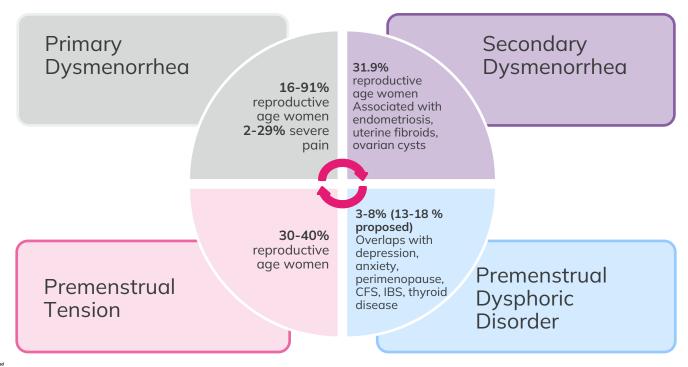
- Cortisol: Diurnal rhythm (peak in AM); dysregulated in chronic stress, depression, and Cushing's.
- Melatonin: Inversely regulated; impacts gonadotropin secretion and ovarian steroidogenesis.
- Menstrual cycle: Affects sleep patterns, thermoregulation, appetite regulation (via leptin/ghrelin).
- Hormonal shifts influence thermogenic capacity, resting metabolic rate, and behavioral motivation (e.g., rewardseeking during luteal phase).

Hormone-Driven Pathophysiology in Female-Specific Conditions



- Premenstrual syndrome
- Premenstrual dysphoric disorder
- Fibrocystic or painful breasts
- Dysmenorrhea
- Endometriosis
- Uterine fibroid tumors
- Cervical dysplasia
- Systemic lupus erythematosis

Quality of Women's Life Related to Shifting Hormones



Conventional Approaches



Conventional approaches are palliative and not without side-effects:

- NSAIDS
- Antidepressants
- Anxiolytics
- Diuretics
- Contraceptives/Hormones
- Surgery

Integrative Treatments

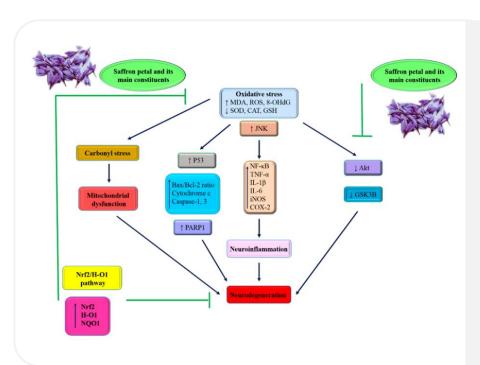


Emerging research suggests that botanicals and trace minerals may offer targeted support in these areas.

- Saffron (Crocus sativus L.) Mood support & neurotransmitter balance.
- Licorice extract (Glycyrrhiza glabra) Gut health & stress response.
- Chromium picolinate Metabolic regulation & cravings management.
- Vitamin B6 Neurotransmitter synthesis & hormonal support.

Crocus sativus L. (Saffron, Affron®)

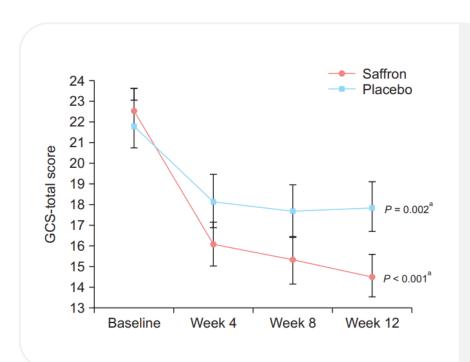




- Powerhouse for brain health and emotional well-being.
- Active compounds: Safranal, crocin, crocetin, and picrocrocin.
- Primary benefits: Neuroprotection, mood stabilization, and sleep quality enhancement.
- Mechanisms:
 - Modulates serotonin, dopamine, and GABA.
 - Antioxidant properties reduce oxidative stress and inflammation.
 - Enhances neuroprotection and synaptic plasticity.

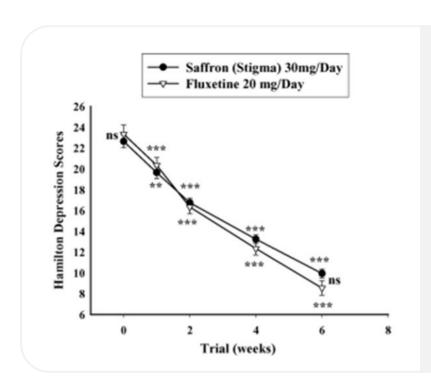


Clinical Study 1



- Double-blind placebo-controlled RCT.
- 82 perimenopausal women.
- 12 weeks of 14 mg twice daily saffron
- Greene Climacteric Scale (GCS) total score reflects overall psychological (e.g. stress and mood) and physical symptoms.
- After 12 weeks GCS total score improved by:
 - 32% in the saffron group
 - 14% in the placebo group
- Post-hoc analysis found saffron reduced anxiety and depression subscores more effectively than placebo.

Clinical Study 2



- 6-week double-blind, randomized pilot trial in 40 adults diagnosed with major depression.
- Saffron extract 30 mg/day or antidepressant medication fluoxetine 20 mg/day.
- Hamilton Rating Scale for Depression (HAM-D)
- Saffron at this dose was effective similar to fluoxetine in the management of mild to moderate depression (p=0.71)

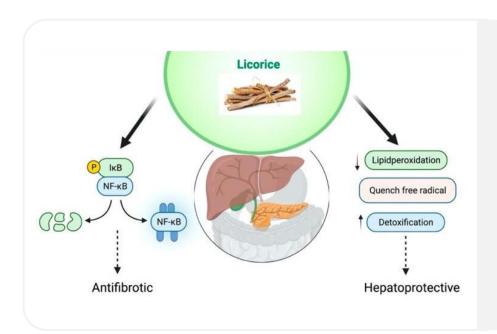
Clinical Study Review

Study Overview	Study Results	Clinical Applicability of Findings	Research Reference
 DBPC-RCT 56 participants, self-reporting anxiety and/or sadness Saffron extract 30 mg/day or placebo for 8 weeks 	Profile of Mood States (POMS) depression subscale Saffron treatment showed a greater reduction of POMS depression subscale than the placebo (p=0.046)	Improves mood, reduces depression symptoms	Jackson PA et al. Front Nutr . 2021;7:606124.
 DBPC-RCT in 40 adults diagnosed with major depression Saffron extract 30 mg/d or placebo for 6 weeks 	Hamilton Rating Scale for Depression (HAM-D) Saffron was more effective than placebo in the management of mild to moderate depression Reduced by 12.20 ± 4.67 points from baseline in saffron group Reduced by 5.10 ± 4.71 points from baseline in placebo group	Improves mood and reduces depressive symptoms	Akhondzadeh S et al. <i>Phytother Res</i> 2005;19(2):148-151.
DBPC-RCT in 128 healthy participants reporting low mood but not diagnosed with depression Saffron extract 28 mg or 22 mg or placebo daily for 4 weeks	Profile of Mood States (POMS) total mood disturbance scale Total scale and all subscales (tension, depression, anger, fatigue, confusion, vigour) were significantly improved by week in the affron 28 mg/day group vs placebo (p<0.001) Significant treatment effect on the change scores for the Depression Anxiety Stress Scale-21 (DASS-21) Depression subscale (p<0.001) and Anxiety subscale (p<0.001)	∘ Improves mood, vigor, reduces fatigue, stress, confusion	Kell G et al. Complement Ther Med 2017;33:58-64.
DBPC-RCT in 55 individuals experiencing poor sleep quality Saffron extract 28 mg or placebo daily for 4 weeks	• Insomnia Severity Index (ISI; primary) and Restorative Sleep Questionnaire and Pittsburgh Sleep Dairy (RSQ and PSD; secondary) • Saffron group had greater improvements in ISI total score than the placebo (p=0.017) • Greater improvements in RSQ total score (p=0.029) and PSD sleep quality ratings (p=0.014)	• Improves restorative sleep quality	Lopresti AL et al. <i>J Clin Sleep Med.</i> 2020;16(6):937-947.



Glycyrrhiza glabra Extract (Licorice)





- Traditionally used in Ayurvedic medicine for respiratory disorders, gastric ulcers and metabolic conditions
- Bioactive compounds: Glycyrrhizin, glycyrrhizic acid, flavonoids (glabridin, isoliquiritigenin, liquiritigenin)
- Key benefits: Anti-inflammatory, antimicrobial, hepatoprotective, and gastroprotective effect
- Mechanisms:
 - Modulates lipoxygenase (LOX) and cyclooxygenase (COX) pathway modulation

Clinical Study 1

Table 3: Efficacy of GutGard on improvement of total symptom scores and Nepean dyspepsia index (mean ± SE).

Groups	Total symptom scores ((Change from baseline)	Nepean dyspepsia index (Change from baseline)		
Gloups	Day 15	Day 30	Day 15	Day 30	
Placebo ($n = 25$)	-5.08 ± 0.57	-8.24 ± 0.76	-4.04 ± 0.49	-6.56 ± 0.85	
GutGard $(n = 25)$	-11.32 ± 0.77 *	$-15.20 \pm 0.71*$	$-12.08 \pm 0.82*$	-19.56 ± 0.85 *	

^{*} $P \le .05$ versus placebo.

TABLE 5: Effect of GutGard on the individual symptoms scores.

Parameter	Groups $(n = 25)$	Day 1	Day 15		Day 30	
rarameter	Groups $(n = 25)$	Change in score	Effect size	Change in score	Effect size	
Upper abdominal fullness	Placebo	-0.52	0.393	-0.88	0.665	
Opper abdominar runness	GutGard	-1.72	5.186	-2.28	6.875	
Upper abdominal pain	Placebo	-0.04	0.084	-0.16	0.336	
opper abdominiai pani	GutGard	-1.24	1.127	-1.88	1.709	
Belching	Placebo	-0.76	0.734	-0.96	0.927	
beidning	GutGard	-1.16	2.352	-1.40	2.838	
Bloating	Placebo	-0.8	0.755	-1.08	1.019	
Dioating	GutGard	-1.04	1.733	-1.36	2.267	
Early satiety	Placebo	-0.88	0.848	-1.04	1.002	
Larry satiety	GutGard	-0.52	0.770	-0.72	1.065	
Nausea	Placebo	-0.16	0.225	-0.28	0.393	
rvausea	GutGard	-0.56	1.065	-0.92	1.749	
Vomiting	Placebo	-0.16	0.210	-0.32	0.419	
vointing	GutGard	-0.68	1.133	-0.80	1.333	
Regurgitation	Placebo	-0.28	0.211	-0.80	0.603	
Reguigitation	GutGard	-1.52	1.675	-1.84	2.028	
Heartburn	Placebo	-0.84	0.899	-1.44	1.541	
i icai totti ii	GutGard	-1.52	1.568	-2.12	2.187	
Loss of appetite	Placebo	-0.64	0.492	-1.28	0.985	
Loss of appetite	GutGard	-1.36	0.905	-1.88	1.252	

- Double-blind placebo-controlled RCT in 50 participants with functional dyspepsia.
- GutGard 75 mg or placebo twice daily for 30 days.
- Global assessment of GI symptoms (primary) and Nepean Dyspepsia Index (NDI) and individual GI symptoms (secondary).
- Compared with placebo, GutGard showed:
 - A significant decrease in total symptom scores and NDI on day 15 and day 30 (p<0.05)
 - Improvement in terms of the effect size in 9 of the 10 individual symptoms
 - 60% overall improvement in digestive symptoms (56% markedly improved and 4% symptom free)



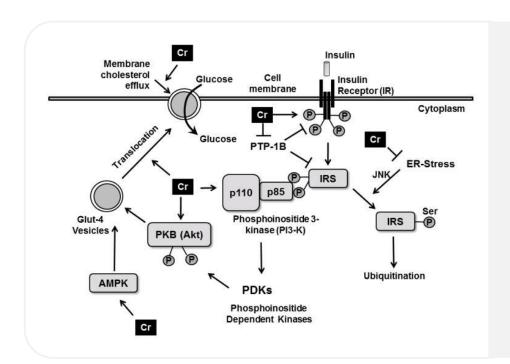
Clinical Study 2

- Double-blind placebo-controlled RCT in 100 participants with H. pylori.
- GutGard 150 mg or placebo daily for 60 days.
- Gastric load of *H. pylori*, assessed using 13C-urea breath test (¹³C-UBT) and Stool antigen test (HpSA).
- Compared with placebo, GutGard showed a significant decrease in *H. pylori* gastric load.
- On day 60, HpSA was negative in 56% GutGard group and 4% in placebo.
- On day 60, ¹³C-UBT was negative in 48% GugGard group and 2% in placebo.

TABLE 2: Effect of GutGard on H. pylori gastric load (mean \pm SD).

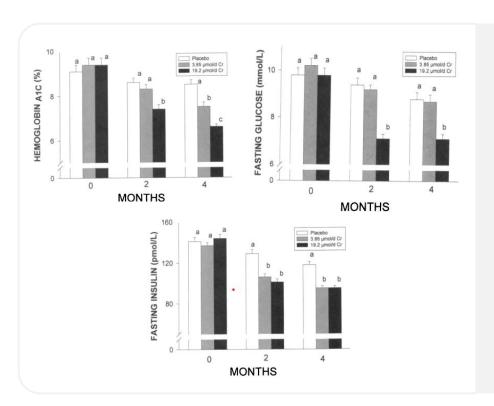
Parameter	Groups	Day 0	Day 30	Day 60	Significance			
					Variables	df	F value	P value
DOB	GutGard	7.12 ± 1.36	6.24 ± 1.24	4.21 ± 1.15	Group	1,98	5.63	0.02
	Placebo	6.88 ± 1.34	6.40 ± 1.31	6.10 ± 1.30	Time	2,196	3047.10	0.00
					Group \times time	2,196	1120.27	0.00

Chromium Picolinate



- Essential trace mineral crucial for: Insulin function, glucose metabolism, and lipid regulation.
- Active form: Trivalent chromium (Cr³⁺).
- Key metabolic benefits: Enhances insulin sensitivity, improves glucose and lipid metabolism, reduces oxidative stress.
- Mechanisms:
 - Insulin potentiation
 - AMP-activated protein kinase activation
 - Modulates lipoxygenase (LOX) and cyclooxygenase (COX) pathway modulation

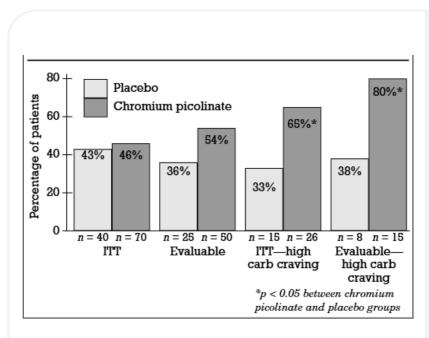
Clinical Study 1



- Double-blind placebo-controlled RCT in 180 individuals with type 2 diabetes.
- Cr picolinate 200 mcg/day (3.85 umol/day), 1000 mcg/day (19.2 umol/day) or placebo for 4 months.
- High Cr: significantly reduced fasting glucose and 2-hour glucose test, fasting insulin, and HbA1c after 2 and 4 months.
- Low Cr: significantly reduced fasting insulin after 2 and 4 months and HbA1c after 4 months (Only high dose Cr improved glucose).



Clinical Study 2

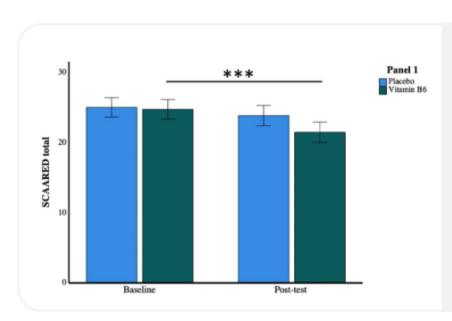


- Double-blind placebo-controlled RCT in 113 adults with atypical depression.
- Placebo or 400 mcg/day elemental Cr as provided by Cr picolinate for the first 2 w and 600 mcg/day for the remaining 6 w
- Individual HAM-D 29 items
- Secondary analysis of HAM-D individual items showed improvements with Cr supplementation:
- Greater response on total HAM-D-29 scores than the placebo group (65% vs. 33%; p<0.05)
- Appetite increase (-1.18 Cr vs. -0.64 placebo)
- Increased eating (-1.22 Cr vs. -0.56 placebo)

Vitamin B6

- A key coenzyme in metabolic and hormonal regulation.
- Active form: Pyridoxal 5'-phosphate (P5P).
- Essential coenzyme in 140+ biochemical reactions, including amino acid metabolism, neurotransmitter synthesis, steroid hormone regulation.
- Role in steroid hormone activity:
 - Modulates steroid hormone receptor function.
 - Reduces sensitivity to glucocorticoids, estrogens, and androgens.
 - Deficiency linked to hormonal imbalances.
- Additional health benefits:
 - Supports DNA stability and methylation.
 - Reduces oxidative stress, crucial for women's health.

Clinical Study 1



- Double-blind study in 478 adults.
- Self-reported anxiety and depression assessed at baseline and after supplementation.
- High-dose vitamin B6 supplementation significantly reduced anxiety (*p*<0.001)
- Showed a trend towards lowering depression.
- Enhanced GABAergic inhibition, evidenced by increased surround suppression of visual contrast detection (p=0.011)



Summary

Mood/sleep

Crocus sativus L. extract (Affron®)

Gastrointestinal health

Glycyrrhiza glabra extract (GutGard®)

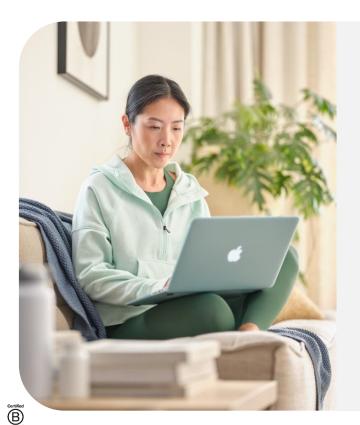
Metabolic health and body composition

Chromium picolinate (Chromo Max®)

Hormone health

Vitamin B6

Case Study



- 47-year-old female
- Elementary school teacher
- Presenting Concerns:
 - Intrusive thoughts (e.g., irrational fears, catastrophic thinking)
 - Emotional lability
 - Poor sleep quality
 - Mid-day energy crashes
 - Mild digestive discomfort (bloating, occasional urgency)
 - No formal psychiatric diagnosis

Case Study: Symptom presentation

- Patient began experiencing troubling intrusive thoughts and emotional hypersensitivity over the past year—coinciding with irregular menstrual cycles, new-onset sleep disturbances, and increased irritability in the premenstrual phase.
- Though not meeting criteria for a psychiatric disorder, her symptoms significantly impacted daily life.
- "Out of nowhere, I'll think—what if I lose control while driving, or say something awful to a student? I know I'd never do it, but it makes my chest tighten and I can't let it go."
- Ruled out major depression and anxiety disorder but noted she was in perimenopause (perhaps late stage) following work-up.
- Treatment goals: Support neuroendocrine sensitivity to hormonal fluctuation, blood sugar instability, and gut-brain axis reactivity.



Case Study: Lifestyle

- Currently does not eat gluten or drink alcohol
- Removed dairy
- Desiccated Thyroid 45mg
- Progesterone 200mg
- Consistency with 3 meals daily + increase protein

Case study: Patient plan

Intervention	Dose	Mechanism/Benefit		
Medical food for compromised gut function (2'-FL, IMO)	2 scoops within 1 hour of waking	 Stabilizes blood sugar for the day, reduces cortisol spikes. Supports gut integrity and a healthy microbiome. 		
S.boulardii, B. lactis Bi-07 ^{†††} , L. plantarum Lp-115, L salivarius Ls- 33, L. acidophilus NCFM ^{†††} , S. thermophilus St-21,B.lactis Bl-04	1 capsule/ day	Improves gut barrier, reduces inflammation, supports estrogen metabolism.		
Specialized pro-resolving mediators	3 x 500mg softgels/day	Mood, reduces inflammation		
B6, Mg, Taurine, NAC, Green tea extract formula	2 capsules/day	Mood, insulin resistance.		
Melatonin, Kava formula	1 capsule ~7pm	Support sleep		
Myo-Inositol, Mg formula	1 scoop/day	Enhances insulin sensitivity, supports ovarian function, reduces anxiety, calms nervous system.		

Case Study: Patient plan (cont)

Started a multi-ingredient formula containing:

- Saffron
- DGL licorice extract
- Chromium
- Chamomile extract
- Vitamin B6
- Decaffeinated green tea extract

Case Study: Outcomes



- Reported fewer disturbing thoughts, and when they did arise, they felt 'less sticky'
 - "I notice the thoughts, but they don't spiral.
 It's like I can shrug them off more easily."
- By week three, Sarah experienced fewer reactive episodes.
 - "I don't feel as easily set off. I still get emotional, but I recover faster."
- Sarah also noted less "gut tension" on stressful days.
 - "My stomach isn't in knots when I get overwhelmed anymore."
- Fewer 3PM energy crashes and reduced cravings for quick carbs.
 - "I can teach through the afternoon without snacking or getting irritable."



This concludes the scientific presentation





HerWellness™



Healthy Hormones[™]

Cross Platform Proprietary Blend



Saffron -Mood -Sleep



Green tea extract
-Estrogen metabolism
-Antioxidant
-Metabolic support



Vitamin B6
-Modulation of steroid hormones





HerWellness™ Naturally Balanced





- An all-in-one solution to naturally promote hormone balance, a healthy metabolism and digestion.
- Designed to target 5 hormonal symptoms:
 - Less bloating in 2 weeks
 - Better sleep in 4 weeks
 - Calmer state of mind in 4 weeks
 - Reduced carbohydrate cravings
 - Supports metabolism:
 Maintains healthy insulin
 metabolism, metabolic health,
 and body composition







HerWellness™ Rapid Period Relief





- Fast-Acting: Starts working in 30 minutes.
- Long-Lasting: Provides relief for up to 6 hours.
- Help you stay energized and full of vitality and reduced fatigue
- Improved energy and had less fatigue in 6 hours
- 73% of women rated the formulation to be excellent for period pain relief
- Comprehensive Relief: Addresses cramps, tension, backaches, and fatigue.







HerWellness™ Rapid Stress Relief



Supplem (Serving Size 1 Soft Chew Servings Per Container 30	ent Fa	acts
	Amount Per Serving	% Daily Value
Calories	25	
Total Fat	0.5 g	1%**
Total Carbohydrate	4 g	1%**
Total Sugars	2 g	***
Includes 2 g Added Sugars		4%**
Vitamin B ₆ (as pyridoxal 5'-phosphate)	2 mg	118%
Sodium	10 mg	<1%
L-Theanine	200 mg	***
Milk Protein Hydrolysate	75 mg	***
A Proprietary Blend of: Decaffeinated green tea (<i>Camellia sinen</i> . Vitamin B ₆ , and Saffron (<i>Crocus sativus</i>)		***
Percent Daily Values are based on a 2,0 *Daily Value not established.	000 calorie diet.	

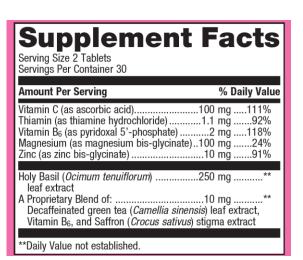
- Rapidly alleviates stress and irritability within 1 hour by improving alpha-band wave activity which is linked to a relaxed but alert mental state
- L-theanine promotes a calm but alert mental state, beneficial for work and daily function.
- Lactium® helps with stress-related blood pressure fluctuations and improves sleep quality.
- Clinically tested formula with a proprietary blend for hormonal balance and stress relief.





HerWellness™ Recharge Overnight





- Proven to reduce stress and promote mental calmness.
- Enhances the body's natural ability to repair and rejuvenate.
- Supports deep, restorative sleep and muscle relaxation.
- Reduces stress hormone levels, as shown by significant reductions in salivary cortisol and blood pressure.





HerWellness™ Estrovera



Supplement Facts

Serving Size 1 Tablet Servings per Container 90

Amount Per Serving

Rhapontic Rhubarb 4 mg* (Rheum rhaponticum L.) Root[†] Extract (ERr 731®) [Providing 2.2 mg rhaponticin and 1 mg desoxy-rhaponticin]

*Daily Value not established.

Other Ingredients: Microcrystalline cellulose, stearic acid (vegetable), croscarmellose sodium, silica, and enteric coating (ethyl cellulose, hydroxypropylmethylcellulose, medium-chain triglycerides, ammonium hydroxide, sodium alginate, hydroxypropylcellulose, oleic acid, and stearic acid).

- Relieves 12 Common Symptoms:
 - Hot flashes, night sweats, sleep disturbances, menopausal anxiety, negative mood, irritability, vaginal dryness, physical and emotional exhaustion, joint and muscular discomfort, and menopausal headaches*
- Relief in 1-4 Weeks: 83% of women reported symptom relief in 1-4 weeks^{††*}



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