



# Women's Health 40+

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ALLIANCE

This presentation provides a brief overview on how to support women's hormonal health holistically

# Introduction



## Menopause and hormonal transition

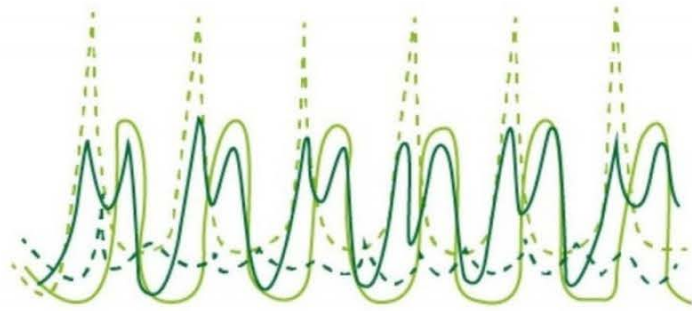
As a woman approaches the twilight of her reproductive years, her body undergoes a profound shift, tapering the production of estrogen and progesterone.

This hormonal transformation often manifests in a array of physical and psychological experiences, presenting a unique chapter in the life cycle.

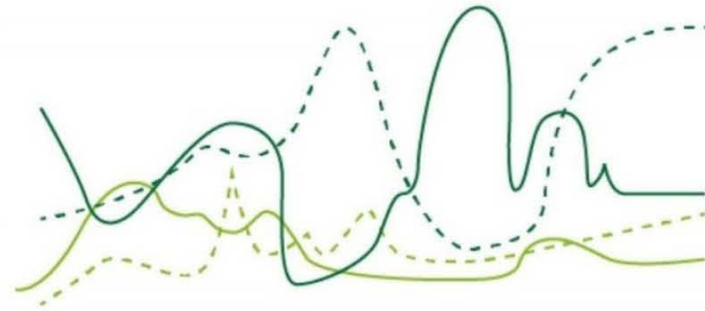
Understanding the hormonal changes throughout a woman's transitional stages is crucial for maintaining overall health and well-being.

# HORMONE FLUCTUATIONS DURING MENOPAUSE

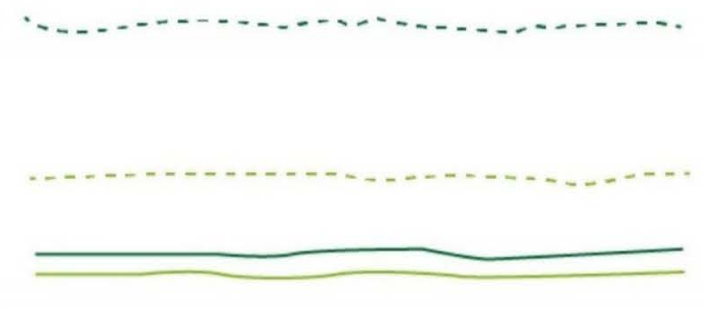
## Premenopause (180 days)



## Perimenopause (180 days)



## Postmenopause (180 days)



— estrogen    — progesterone    - - - FSH    - - - LH

Changes in Hormone Level patterns over Six Months - Graph based on data from Dr. Nanette Santoro -> Harvard Women's Health Watch, 1999

# Peri-Menopause

## Nutrition

**Phytoestrogens:** Found in soy, flaxseeds, and chickpeas, help balance estrogen levels.

**Calcium and Vitamin D:**

Essential to counter declining bone density; include dairy or fortified plant-based alternatives.

**Protein:** Preserves muscle mass, supports metabolism and glucose tolerance.

**Anti-Inflammatory Foods:**

Include fatty fish, berries, and leafy greens.

## Sleep

Reduced estrogen leads to insomnia and sweats. Maintain a cool, dark room and consistent sleep routine. Practice mindfulness to manage stress.

## Movement

**Strength train** to keep bones and muscles strong. Practice yoga or Pilates for flexibility and stress relief.

## Key Nutrients

**Magnesium Glycinate:** Improves sleep and supports mood.

**Calcium and Vitamin D:** Protect against osteoporosis.

**Omega-3 Fatty Acids:** Reduce inflammation and support heart health.

**Adaptogens/Herbs (e.g., Ashwagandha):** Help regulate stress and cortisol levels.

**B-Complex Vitamins or Broad-Spectrum Multivitamin:** Support energy and reduce mood swings.

# Menopause

## Nutrition

**Protein** supports muscle mass and metabolism. Consume lean meats, fish, eggs, legumes, tofu, and powders as needed.

**Calcium/Vitamin D:** Dairy, fortified plants, greens, and salmon strengthen bones.

**Healthy Fats:** Avocados, nuts, seeds, olive oil, fish boost hormones and heart.

**Fiber**-rich foods boost digestion and heart wellness.

**Phytoestrogens:** Soy, flaxseeds, and chickpeas contain phytoestrogens that may relieve menopause symptoms.

**Limit sugar, alcohol, and processed foods** to curb hot flashes, and inflammation.

## Movement/Sleep

**Sleep:** Hormonal changes during and after menopause can cause insomnia and night sweats.

### **Movement:**

Regular exercise is vital for maintaining bone density, muscle mass, and cardiovascular health during and after menopause.

**Weight-Bearing Exercises:** Strength training and resistance exercises help prevent osteoporosis and preserve lean muscle.

**Aerobic Activities:** Walking, swimming, cycling, or dancing improve heart health and stamina.

**Flexibility and Stress Relief:** Yoga, Pilates, or tai chi support joint health, balance, and stress management.

## Key Nutrients

**Protein Powder (if needed):** An easy way to meet daily protein needs, especially for maintaining muscle mass.

**Calcium and Vitamin D:** Essential for bone strength and preventing osteoporosis.

**Magnesium Glycinate:** Supports sleep, mood, and muscle relaxation.

**Omega-3 Fatty Acids:** Improve joint health, reduce inflammation, and support heart and brain health.

**Black Cohosh or other supportive herbs:** May alleviate hot flashes and night sweats.

**Collagen Peptides:** Enhances skin elasticity, supports joint health, and benefits bone density.

# HRT and BHRT: Supporting Women in Perimenopause and Menopause

- HRT and BHRT can rejuvenate women's health during hormonal changes, alleviating symptoms and mitigating long-term risks.
- HRT and BHRT use hormones to address declining levels during perimenopause and menopause. BHRT employs plant-derived, body-identical hormones, offering individualized dosing and natural compatibility.
- **Key Benefits:** Reduction of Menopausal Symptoms, Bone Health, Cardiovascular health, Cognitive Function and Mood, Urogenital Health
- **Who Can Benefit?** Women experiencing severe menopausal symptoms, bone loss, heart disease risk, or cognitive changes may benefit from hormone therapy.
- **Contraindications** include active or recent breast cancer, unexplained vaginal bleeding, and certain cardiovascular or clotting disorders. Women with these conditions should explore alternative therapies.

# Additional Nutrients

- **Fiber**

Fiber benefits digestion, hormone detoxification, weight management, blood sugar regulation, and cholesterol reduction, which is crucial during perimenopause. Consider a fiber supplement if dietary intake is insufficient. Look at sources such as **Psyllium Husks, Inulin, PHGG (Sunfiber), Acacia Fiber, Pectin, GOS, FOS, Beta-Glucans, Larch Arabinogalactan, Konjac Glucomannan, Resistant Starch (RS)**

- **Creatine**

Maintains muscle strength and brain function, boosts energy by increasing ATP. Recommended dose: 3-5 grams daily, mixed into water or a smoothie.

- **N-Acetylcysteine (NAC)**

N-acetylcysteine acts as a glutathione precursor, enhancing detoxification and supporting liver health. It may also improve mood by modulating glutamate levels. The recommended dose is 600-1200 mg daily.

- **Glutathione**

Glutathione's benefits include reducing oxidative stress, supporting immunity, mitigating inflammation, and promoting skin health. Opt for liposomal glutathione or precursors like NAC and Vitamin C.

# Herbs and Supplements

## Herbs and Adaptogens

Adaptogens help manage stress, support adrenals, and ease hormonal transitions.

- Ashwagandha
- Rhodiola
- Maca
- Shatavari
- Dong Quai
- Tribulus Terrestris
- Red Clover
- Eleuthero (Siberian Ginseng)
- Holy Basil
- Cordyceps
- Schisandra

## Other Key Supplements:

- **DIM or sulforaphane (broccoli sprouts) Calcium D Glucarate:** promotes healthy estrogen levels, reducing bloating, tenderness, and mood issues.
- **Probiotics:** A thriving gut supports estrogen removal and curbs inflammation.
- **L-Theanine** calms, enhances sleep, and regulates mood. Dosage: 100-200 mg daily.
- **Phosphatidylcholine and Inositol** enhance liver, hormones, brain, and insulin regulation.



# Gut Health Connection

## Gut-Brain Axis

The diverse microbial community residing within the gut actively dialogues with the central nervous system, modulating the synthesis and homeostasis of vital hormones that govern physiological and psychological processes.

## Insulin Sensitivity

The gut microbiome can affect insulin sensitivity, which is critical for regulating blood sugar levels and maintaining a healthy metabolism.

## Stress Response

The gut microbiome can modulate the body's stress response by influencing the production of hormones like cortisol, which are involved in the stress response.

## Gut Microbiome Diversity

The microbial diversity within the gut plays a crucial role in regulating hormone homeostasis, as various bacterial species contribute to the production, utilization, and metabolic processing of distinct hormone types, ensuring the maintenance of optimal hormonal balance.

## Estrogen Regulation

The gut microbiome plays a crucial role in the metabolism and excretion of estrogen, helping to maintain a healthy balance of this hormone. Within the microbiome, a subset of bacteria known as the **estrobolome** is particularly important for estrogen regulation. These bacteria produce **beta-glucuronidase**, an enzyme that deconjugates estrogens in the gut, allowing them to be reabsorbed into the bloodstream or excreted

# Hormone Testing

**dutchplus** **PRECISION ANALYTICAL INC.**

Accession # 00526587  
Female Sample Report  
123 A Street  
Somerset, CA 90266

**Last Menstrual Period:**

Ordering Provider: Precision Analytical  
DOB: 1976-01-01  
Age: 46  
Sex: Female

Collection Times:  
2022-06-13 06:00AM (S)  
2022-06-13 06:30AM (S)  
2022-06-13 07:00AM (S)  
2022-06-13 08:00PM (S)  
2022-06-13 10:00PM (S)  
2022-06-13 06:00AM (U)  
2022-06-13 06:00AM (U)  
2022-06-13 05:00PM (U)  
2022-06-13 10:00PM (U)

**Hormone Testing Summary**

Sex Hormones: Estradiol(E2) 0.9, Progesterone 0.9, Testosterone 3.6

Adrenal Hormones: Salvia Free Cortisol Pattern (Waking, 9-10am, 3-6pm, 8-10pm, Afternoon, Night)

**Adrenal Hormones**

Salvia Free Cortisol Pattern: Waking (3), 9-10am (10), 3-6pm (8), 8-10pm (3), Afternoon (5), Night (2)

Total DHEA Production: 1494

Salvia Cortisol Total: 11.05

The following address (which can also be found on the website under the listed names along with others) may aid your understanding:  
**PLEASE BE SURE TO READ BELOW FOR ANY SPECIFIC LAB COMMENTS. More detailed comments can be found on page 9.**

Page 1 of 14  
Precision Analytical (Open Hse, Ph.D., Lab Director)  
3130 Rungtong Street # 301C  
Redwood, CA 97128

**dutchplus** **PRECISION ANALYTICAL INC.**

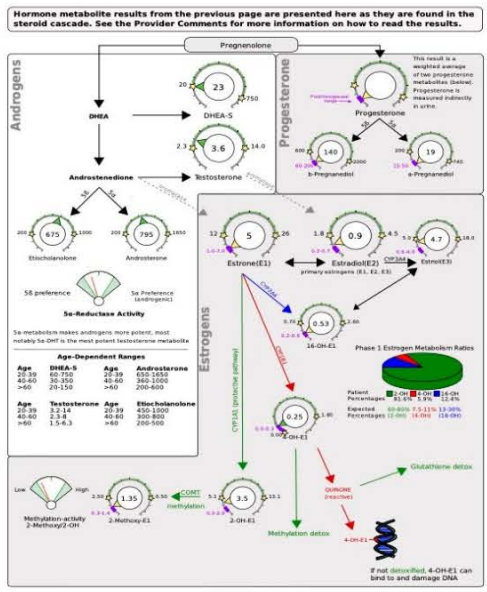
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2022-06-13 06:00AM (U)  
2022-06-13 05:00PM (U)  
2022-06-13 10:00PM (U)

Category	Test	Nutritional/ Organic Acids	Result	Units	Normal Range
Vitamin B12 Marker (may be deficient if high) - (Urine)	Methylmalonate (MMA)		4.89	ug/mg	0 - 2.5
	Xanthurenate		1.23	ug/mg	0.12 - 1.2
	Kynurenate		5.35	ug/mg	0.8 - 4.5
Biotin Marker (may be deficient if high) - (Urine)	b-Hydroxyisovalerate		7.9	ug/mg	0 - 12.5
	Glutathione Marker (may be deficient if low or high) - (Urine)		0.0	ug/mg	28 - 58
Gut Marker (potential gut putrefaction or dysbiosis if high) - (Urine)	Pyroglutamate		90.4	ug/mg	0 - 100
	Indican				
Neuro-related Markers	Dopamine Metabolite - (Urine)				
	Homovanillate (HVA)	Low end of range	4.4	ug/mg	3 - 11
	Norepinephrine/Epinephrine Metabolite - (Urine)		7.3	ug/mg	2.2 - 5.5
Neuroinflammation Marker - (Urine)	Vanilmandelate (VMA)	Above range			
	Quinolinate	Above range	13.2	ug/mg	0 - 9.6
Additional Markers	Melatonin (measured as 6-OH-Melatonin-Sulfate) - (Urine)		1.3	ng/mg	10 - 85
	Melatonin* (Waking)	Below range			
	Oxidative Stress / DNA Damage, measured as 8-Hydroxy-2-deoxyguanosine (8-OHdG) - (Urine)		3.8	ng/mg	0 - 5.2



Page 2 of 14  
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3130 Rungtong Street # 301C  
Redwood, CA 97128

## THYROID TESTING

T3, FREE	2.8	2.3 - 4.2	pg/ml
T4, FREE	1.11	0.89 - 1.76	ng/dl
TSH	1.441	0.550 - 4.780	uIU/ml

## ENDOCRINE EVALUATION

FSH	5.5		mIU/ml
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### \*\*Female Reference Ranges\*\*

Follicular Phase	2.5 - 10.2	mIU/mL
Mid Cycle Peak	3.4 - 33.4	mIU/mL
Luteal Phase	1.5 - 9.1	mIU/mL
Pregnant	< 0.3	mIU/mL
Post Menopausal	23.0 - 116.3	mIU/mL

LH	13.7		mIU/ml
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### \*\*Female Reference Ranges\*\*

Follicular Phase	1.9 - 12.5	mIU/mL
Mid Cycle Peak	8.7 - 76.3	mIU/mL
Luteal Phase	0.5 - 16.9	mIU/mL
Pregnant	< 0.1 - 1.5	mIU/mL
Post Menopausal	5.0 - 55.2	mIU/mL

## PROGESTERONE

PROGESTERONE	8.61		ng/mL
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ESTRONE (E1), LC/MS/MS	57.9	17.0 - 200.0	pg/ml
ESTRADIOL (E2)	123.8		pg/mL

### \*\*Female Reference Ranges\*\*

#### Menstruating females (by day in cycle relative to LH peak)

Follicular Phase (-12 to -4 days)	19.5 - 144.2	pg/mL
Mid Cycle Peak (-3 to +2 days)	63.9 - 356.7	pg/mL
Luteal Phase (+4 to +12 days)	55.8 - 214.2	pg/mL
Post Menopausal (untreated)	11.8 - 32.2	pg/mL

ESTRIOL (E3), LC/MS/MS	< 0.02	< 0.20	ng/ml
DHEA-SULFATE	128.9	25.9 - 460.2	ug/dl
DIHYDROTESTOSTERONE LC/MS	8.7	<30.0	ng/dL

TESTOSTERONE, TOTAL	21	6 - 82	ng/dl
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### \*\*Female Reference Ranges\*\*

Premenopausal	9 - 48	ng/dL
Postmenopausal	<7 - 46	ng/dL

SEX HORMONE BIND GLOBULIN	61		nmol/L
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## TESTOSTERONE, FREE IGF-1

TESTOSTERONE, FREE	0.2	0.2 - 2.6	ng/dl
IGF-1	111 L	113 - 172	ng/mL

Access Medical Laboratories uses Siemens Healthcare Diagnostics as the supplier for IGF-1 Immunoassay Testing System. Siemens introduced a Restandardization of IGF-1 assay using WHO 1st International Standard (IS), NIBSC Code 02/254.

## IGFBP-3 CORTISOL

IGFBP-3	3.6	3.3 - 6.6	ug/ml
CORTISOL	20.9		ug/dl

### \*\*Normal individuals\*\*

Morning am 7-9:	5.2 - 22.5	ug/dL
Afternoon pm 3-5 :	3.4 - 16.8	ug/dL

# Personalized Approach

- **Recognizing Individual Differences**

Hormonal concerns differ greatly due to age, genetics, lifestyle, and medical conditions, necessitating personalized solutions.

- **Comprehensive Assessments**

Comprehensive assessments uncover hormonal imbalances, guiding personalized treatment for optimal health.

- **Tailored Treatment Plans**

Personalized treatment plans address individual hormonal concerns through lifestyle, diet, supplements, or targeted therapies.

- **Collaborative Decision-Making**

Tailoring treatment plans to individual patient needs and preferences fosters better adherence and long-term success.

- **Ongoing Monitoring and Adjustments**

Closely tracking the patient's treatment progress and promptly updating the care plan are essential for maintaining hormonal equilibrium and addressing arising issues.



Thank you

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