HORMONE REPLACEMENT THERAPY GUIDE

Why Natural Bioidentical? When used at appropriate doses, bioidentical hormones are PROTECTIVE for: bone health, brain function, cardiovascular system, skin health, libido, and vaginal tissue. They are molecularly identical to what your body produces — unlike synthetic versions.

The Golden Rule: **Never swallow estrogen (use topical only)** **AND** Support hormone **METABOLISM** as much as you support replacement. Your liver must break down hormones efficiently or they recirculate. DIM and Calcium-D-Glucarate are essential companions to any HRT protocol.

ESTROGEN The Protective Hormone — Topical Only

Key Benefits

Brain & Cognition

- Neuroprotection — shields brain cells from damage
- Memory & verbal recall — supports hippocampal function
- May reduce Alzheimer's risk up to 50% when started early
- Mood regulation via serotonin & dopamine
- Cognitive clarity, focus, executive function

Bone Health

- Prevents osteoporosis — inhibits bone breakdown
- Maintains bone density; reduces fracture risk
- Supports calcium absorption

Cardiovascular

- Protects arterial walls; improves elasticity
- Raises HDL, lowers LDL
- Reduces plaque formation & C-reactive protein
- Lower clotting risk with transdermal form

Key Benefits (continued)

Metabolic & Body Composition

- Improves insulin sensitivity
- Prevents "meno-belly" — reduces abdominal fat
- Supports mitochondrial function

Urogenital & Physical

- Maintains vaginal tissue thickness, elasticity, lubrication
- Prevents vaginal atrophy; reduces UTI risk
- Supports bladder & urethral integrity
- Joint health, muscle strength, eye health, sleep

Mood & Sexual Health

- Stabilizes emotions; reduces mood swings & anxiety
- Prevents depression via neurotransmitter support
- Supports arousal, genital sensitivity, sexual comfort

Dosing & Application

Form: BiEst cream, estradiol patch, or vaginal — TOPICAL ONLY. Oral estrogen is NOT recommended.

Why NOT oral estrogen:

- First-pass liver effect increases metabolites
- Raises clotting factors (DVT/PE risk)
- Raises inflammatory markers
- Increases gallbladder disease & triglycerides

Application tips:

- Use WRIST to apply cream/gel to body
- Avoid touching others immediately after
- Rotate application sites

Dosing signals:

Too much: Moodiness, breast tenderness, bloating → stop 2–4 days, resume at lower dose or 2–3x/week

Too little: Hot flashes, night sweats, insomnia → increase dose 1–2 weeks then return to lowest effective

Types of estrogen:

- E1 (Estrone) — dominant post-menopause, produced in fat tissue
- E2 (Estradiol) — most potent; strongest benefits for bone, brain, heart
- E3 (Estriol) — weakest; often used in BiEst (80% E3 / 20% E2)

PROGESTERONE The Calming, Protective Hormone

Key Benefits

Brain Protection

- Extremely neuroprotective — reduces brain inflammation
- Supports myelin sheath around nerves
- GABA-A receptor activation — natural anti-anxiety effect
- Supports memory, learning, cognitive function

Sleep Enhancement

- Converts to allopregnanolone — powerful natural sleep aid
- Promotes deep, slow-wave sleep
- Reduces night waking; supports healthy REM cycles

Bone, Cardiovascular & Breast

- Stimulates osteoblasts (bone-building cells)
- Works synergistically with estrogen for bone
- Reduces cardiovascular inflammation & vasospasm
- Balances estrogen in breast tissue — may reduce cancer risk
- Reduces breast tenderness when properly balanced

Key Benefits (continued)

Uterine Health ⚠ CRITICAL

- Protects uterine lining from estrogen overgrowth
- Prevents endometrial hyperplasia & cancer risk
- If you have a uterus and take estrogen — progesterone is NON-NEGOTIABLE

Metabolic & Weight

- Natural diuretic — reduces water retention
- Facilitates thyroid hormone utilization
- Supports insulin sensitivity & healthy fat metabolism

Mood & Anxiety

- Reduces anxiety, panic attacks, racing thoughts
- Mild antidepressant properties; reduces mood swings
- PMS relief; emotional balance
- Calms nervous system — similar to benzodiazepines but natural

Without a Uterus:

- Still beneficial for brain, bone, mood, and sleep
- Optional but many feel significantly better with it

Dosing & Application

Best form: Oral capsules with oil (most protective for brain, best for sleep). Sublingual troches are a good alternative.

Oral capsules — why preferred:

- First-pass liver metabolism creates allopregnanolone (neurosteroid with anti-anxiety + sleep effects)
- Maximizes neuroprotective metabolites
- GABA-A receptor activation — maximum anxiolytic effect

Dosing guidelines:

- Typical dose: 100–300mg at bedtime
- Take with food containing fat for better absorption
- Start low and increase gradually
- May feel groggy if dose is too high

Sublingual troches:

- Faster absorption; bypasses first-pass liver
- Less sedation — better for daytime use
- Different metabolite profile than oral

Dosing signals:

Too little: Insomnia (esp. 2–4am waking), anxiety, breast tenderness, heavy bleeding, headaches

Too much: Excessive drowsiness, fatigue, depression, brain fog → reduce dose or adjust timing

Uterus present: 100–200mg oral daily, or 12+ days/month at higher dose

Natural vs. Synthetic Progestins: Bioidentical progesterone is molecularly identical to what your body produces. Synthetic progestins (medroxyprogesterone, norethindrone) have very different effects and more side effects. The WHI study that raised cancer concerns used synthetic Provera — NOT natural progesterone. Natural is safer with a better protective profile.

TESTOSTERONE The Vitality Hormone — Not Just for Men!

Key Benefits

Sexual Function (Primary Benefit)

- THE most important hormone for libido in women
- Enhances physical arousal & clitoral sensitivity
- Improves orgasmic function, sexual confidence & satisfaction
- Supports natural vaginal lubrication (with estrogen)

Muscle, Strength & Body Composition

- Builds and maintains lean muscle mass
- Prevents sarcopenia (age-related muscle loss)
- Reduces abdominal/visceral fat; increases metabolic rate
- Improves insulin sensitivity

Energy, Brain & Mood

- Increases vitality, stamina, and exercise capacity
- Reduces brain fog, improves focus & mental clarity
- Mild antidepressant; increases confidence & motivation
- Improves early morning waking / sleep quality

Bone & Cardiovascular

- Increases bone mineral density; stimulates bone formation
- Improves blood vessel function & cardiac output

Urinary Health (Underappreciated)

- Decreases nighttime urination (nocturia)
- Reduces overactive bladder, urgency & daytime frequency
- Supports pelvic floor muscle strength

Dosing & Application

Women need MUCH less than men: Therapeutic range 50–100 ng/dL total testosterone (vs. men's 300–1000 ng/dL).

Topical cream (most common):

- Apply to inner thighs, inner arms, or vulvar/clitoral area
- Use WRIST to apply to other body areas (avoid palm)
- Rotate sites; wash hands thoroughly after
- Wait before skin-to-skin contact — transfer risk
- Dose: 0.5–5mg daily (most common: 2–3mg)

Troches (sublingual/buccal):

- Rapid absorption; bypasses first-pass liver
- No transfer concerns; 0.5–3mg daily or twice daily

Injections:

- Highest bioavailability; 10–25mg weekly
- Consistent levels; less frequent dosing

Pellets (subcutaneous implants):

- Lasts 3–6 months; steady release — 50–100mg per insertion
- Cannot adjust if dose is too high; higher upfront cost

Dosing signals:

Too little: Low libido, persistent fatigue, muscle loss, brain fog, depression, nocturia, low confidence

Too much: Acne, facial hair, scalp hair thinning, irritability → reduce dose immediately; acne & irritability are earliest signs

Testing:

- Free testosterone most accurate for symptoms
- Also check SHBG (affects availability) and DHT (if acne/hair loss)
- Test in morning; recheck every 3–6 months initially

DHEA The Adrenal "Mother Hormone"

Key Benefits

DHEA is the most abundant steroid hormone in the body — a precursor to both testosterone and estrogen. Levels decline 80–90% by age 70.

Adrenal & Immune Support

- Balances cortisol-to-DHEA ratio; improves stress resilience
- Reduces adrenal fatigue; supports energy production
- Enhances immune function; may modulate autoimmune conditions
- Shown to improve symptoms in Lupus (SLE)

Body Composition, Bone & Skin

- Reduces visceral/abdominal fat; increases lean muscle

Dosing & Application

DHEA converts to: Androstenedione → Testosterone → Estrone/Estradiol. Individual conversion varies — monitor for androgenic or estrogenic excess symptoms.

Oral capsules (most common):

- Micronized DHEA — well-absorbed, inexpensive
- Take in morning with food (mimics natural rhythm)
- Women's dose: 5–50mg daily (start low: 5–10mg)
- Sustained-release may reduce side effects

Vaginal suppositories (Intrarosa/Prasterone):

- Increases bone mineral density; stimulates osteoblasts
- Improves skin thickness, hydration, and collagen production

Sexual & Vaginal Health

- Treats vaginal atrophy & dryness (FDA-approved vaginal form: Intrarosa)
- Converts to testosterone locally → improves libido

Brain, Mood & Vitality

- Anti-depressant effects shown in multiple studies
- Improves memory, cognitive performance, focus
- Increases energy, reduces fatigue; enhances sense of wellbeing
- Buffers cortisol's negative effects on the body

- FDA-approved for vaginal atrophy
- Converts locally to estrogen & testosterone in vaginal tissue
- Minimal systemic absorption at 6.5mg daily
- Highly effective for genitourinary symptoms

7-Keto-DHEA Alternative:

- Does NOT convert to sex hormones — safe if concerned about conversion
- May support weight loss; typical dose 50–100mg twice daily

Testing:

- Test DHEA-S (sulfate form) — more stable than DHEA
- Optimal range: 200–350 µg/dL for women
- Monitor every 3–6 months initially

QUICK REFERENCE: SIGNS OF DEFICIENCY & EXCESS

HORMONE	SIGNS OF DEFICIENCY	SIGNS OF TOO MUCH	IF EXCESS — DO THIS
ESTROGEN	Hot flashes, night sweats Vaginal dryness / atrophy Painful intercourse Brain fog, memory problems Dry/thinning skin & hair Joint pain, sleep issues Heart palpitations Depression, irritability	Breast tenderness/swelling Bloating, water retention PMS-like moodiness Headaches or migraines Heavy menstrual bleeding Fibrocystic breasts Weight gain (hips/thighs) Anxiety or panic attacks	Stop 2–4 days Resume at lower dose Try 2–3x/week vs. daily Support liver detox (DIM, Calcium D-Glucarate) Consider adding progesterone to balance
PROGESTERONE	Insomnia (esp. 2–4am) Anxiety, nervous tension Breast tenderness Heavy/irregular periods Headaches, migraines Fluid retention PMS / PMDD Racing thoughts	Excessive drowsiness Morning fatigue/grogginess Depression, brain fog Emotional flatness Decreased motivation Weight gain, bloating Withdrawal from social activities	Reduce dose Move to bedtime if not already May need to adjust E:P ratio Ensure liver detox pathways working
TESTOSTERONE	Low/absent libido Sexual dysfunction Persistent fatigue Muscle weakness or loss Increased abdominal fat Brain fog, depression Thinning scalp hair Low confidence / motivation Nocturia (night urination)	Acne (earliest sign) Oily skin Facial hair growth Scalp hair thinning Irritability / short fuse Deepening voice Clitoral enlargement (high dose only)	Reduce dose immediately Acne & irritability = first signals Consider different delivery method Check DHT levels Support detox pathways
DHEA	Morning fatigue Low stamina/endurance Abdominal fat gain Thin, dry skin Low libido Poor stress resilience Depression, brain fog Frequent infections Vaginal dryness	Acne (most common) Oily skin, body odor Facial hair in women Irritability, restlessness Insomnia, mood swings Anxiety or jitteriness Scalp hair loss	Reduce dose or stop temporarily Acne = first sign in women Support hormone metabolism (DIM) Test DHEA-S levels Consider 7-Keto-DHEA instead

QUICK REFERENCE: HORMONE DELIVERY METHODS

DELIVERY METHOD	BEST FOR	KEY ADVANTAGES	CONSIDERATIONS
Topical Cream / Gel(Estrogen & Testosterone)	Daily maintenance; adjustable dosing	Bypasses liver first-pass Steady physiological levels Lower clotting risk vs. oral Adjustable dose	Transfer risk to others Rotate sites Use wrist to apply Wash hands after
Transdermal Patch(Estrogen)	Consistent estrogen delivery	Bypasses liver Steady blood levels Convenient 1–2x/week Lower clotting risk	Skin reactions at site May not adhere in heat/sweat Limited dose flexibility
Vaginal Cream / Suppository(Estrogen, DHEA)	Genitourinary symptoms	Minimal systemic absorption Highly effective locally Safe even with contraindications to systemic E FDA-approved DHEA form (Intrarosa)	Primarily local effect Some prefer systemic for full benefits Daily application
Oral Capsules with Oil(Progesterone ONLY)	Sleep, anxiety, brain protection	Creates allopregnanolone — natural sleep/anti-anxiety neurosteroid Best neuroprotective metabolites Maximum GABA-A activation	Sedative — take at bedtime Typical dose 100–300mg Start low; groggy if too high Take with fat for absorption
Sublingual Troches(Progesterone, Testosterone, DHEA)	Faster action; less sedation	Bypasses first-pass liver Rapid absorption No transfer concerns Good alternative for daytime use	May have unpleasant taste Variable absorption Different metabolite profile than oral
Injections(Testosterone)	Consistent high bioavailability	Highest bioavailability Weekly–biweekly dosing Very stable levels	Must tolerate injections Women's dose: 10–25mg weekly Can cause level peaks/troughs
Pellets(Testosterone)	Convenience; long-duration	3–6 month duration Very steady levels No daily dosing	Minor surgical insertion Dose fixed once inserted Cannot adjust if too high Higher upfront cost
Oral Capsules(DHEA)	Adrenal support; immune function	Well-absorbed micronized form Inexpensive; easy to dose Take morning with food	Converts to sex hormones — monitor levels Women: 5–50mg daily Sustained-release may suit sensitive patients

WHEN ALL HORMONES ARE BALANCED: SYNERGISTIC EFFECTS

Cognition & Brain

- Estrogen + Progesterone → optimal memory & brain protection
- Testosterone → mental clarity, focus, processing speed
- DHEA → overall cognitive performance & neuroprotection

Combined: better than any hormone alone

Sleep Quality

- Progesterone → deep sleep, reduces night waking
- Estrogen → regulates sleep-wake cycle, reduces hot flashes
- Testosterone → reduces nocturia
- DHEA → buffers cortisol for deeper rest

Combined: restorative, uninterrupted sleep

Mood & Emotional Health

- Estrogen → stabilizes mood, supports neurotransmitters
- Progesterone → calms nervous system, reduces anxiety
- Testosterone → elevates mood, builds confidence
- DHEA → antidepressant effects, enhances wellbeing

Combined: emotional stability & resilience

Bone, Heart & Body

- Estrogen → prevents bone breakdown; major vascular protection
- Progesterone → stimulates bone building; reduces inflammation
- Testosterone → increases bone density & strength
- DHEA → supports bone formation; reduces arterial stiffness

Combined: maximum osteoporosis & cardiovascular protection

SUPPORTING OPTIMAL HORMONE METABOLISM

Essential Liver Support

It is VERY important to support your liver's breakdown of hormones. Without proper detox support, hormones recirculate and create imbalance.

Key supplements:

- DIM (Diindolylmethane) — directs estrogen toward protective metabolites
- Calcium-D-Glucarate — prevents reabsorption of used hormones
- Phosphatidylcholine — rebuilds liver cell membranes
- NAC / Glutathione — Phase II detox support
- MSM — sulfur for liver pathways

Adrenal & Cortisol Balance

Evening cortisol interferes with hormone balance and promotes "meno-belly."

Cortisol / adrenal support:

- Phosphatidylserine — lowers evening cortisol
- Magnolia/Honokiol — calms HPA axis
- A-Drenal or adaptogenic herbs (daytime) — ashwagandha, rhodiola

Probiotics for weight & metabolism:

- GLP-1 probiotic support
- Probiomax Lean
- Klaire metabolic formula probiotic

Lifestyle Foundations

All of these affect hormone balance:

- Diet: Avoid processed foods, sugar, vegetable oils
- Exercise: Strength training supports testosterone & metabolism
- Sleep: Non-negotiable for hormone regulation
- Stress management: Chronic stress depletes sex hormones
- Reduce toxin exposure: Xenoestrogens disrupt hormone signaling

Signs your hormones are well-balanced:

- Stable weight, good energy throughout the day
- Restorative sleep, no hot flashes or night sweats
- Stable mood, mental clarity, good memory
- Healthy libido, comfortable joints, healthy skin & hair
- Confidence, motivation, sense of vitality

TRACKING YOUR PROGRESS

Weekly Symptom Log

Rate each symptom 1–10 for severity and frequency. Track weekly and bring to appointments.

- Hot flashes
- Night sweats
- Sleep quality
- Bowel movements
- Mood / irritability
- Anxiety / depression
- Hip / joint pain
- Headaches

Add your own: _____

Important Reminders

- Hormone needs are highly individual — symptoms guide dosing
- Allow 2–3 months for full effects before adjusting
- Start low, go slow — one change at a time
- Regular lab testing guides adjustments; track DHEA-S, free testosterone, estradiol
- DIM and Calcium D-Glucarate are essential companions — not optional
- Liver health, gut health, and detox pathways affect hormone levels
- Find a practitioner experienced in bioidentical HRT for ongoing support

Be patient: Full effects take 2–3 months. Good weeks and challenging weeks are both normal. We're here to support you every step of the way.