

# **APOTHECARY OPTIONS**

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How Much Hormone Does the Body Produce Naturally?	Commercial Product	=	<u>Approximate Bioidentical Conversion</u>
<p style="text-align: center;"><b><u>Estradiol</u></b></p> <p><b>Normal Body production =</b></p> <p>0.07 - 0.5mg per day depending on the day of the cycle</p> <p>Highest estrogen production comes mid-cycle (~days 12-14)</p> <p>Significant estrogen production in adipose tissue during menopause due to aromatization. Some heavy women produce more estrogen during menopause than thinner women do in pre-menopause.</p>	Premarin® 0.625mg oral (or Cenestin®)	=	Tri Est – 5mg oral (Tri-Est recommended. Premarin® contains 50% estrone)
	Premarin® 0.625mg oral (or Cenestin®)	=	Estrace® 1mg oral
	Estrace® 0.5mg oral	=	Bi-Est 2.5mg oral
	Estrace® 0.5mg oral	=	Bi-Est 0.315mg topical cream
	Estrace® 0.5mg oral	=	Vivelle® 0.05 mg topical patch
	Vivelle® 0.05 mg topical patch	=	Bi-Est 0.3125mg cream/day
	Estrasorb® (estradiol hemihydrate) 1.74gm packet One packet = 0.025mg estradiol	=	0.025 mg Vivelle® patch per packet or Bi-Est 0.1625 mg cream/day per packet
	EstroGel® 0.06% Each 1.25gm metered dose provides <u>0.75mg</u> of topical estradiol	=	This product is VERY strong. Monitor response. Each 1.25gm metered dose contains <u>0.75mg</u> of topical estradiol. Equivalent to 2-4 mg of oral estradiol per day.
	Estrace® 0.01% (estradiol) Vaginal Cream	=	Bi-Est 0.625 mg Vaginal Cream
	Vagifem® 0.025% (estradiol) Vaginal Cream	=	Bi-Est 1.25 mg Vaginal Cream
Estring® (estradiol 2mg/90 days)	=	Bi-Est 0.125mg three times weekly - vaginally	
<p style="text-align: center;"><b><u>Progesterone</u></b></p> <p><b>Normal Body Production =</b></p> <p>2-3mg per day in the follicular phase days 1-14 of cycle)</p> <p>30 mg/day in the luteal phase (days 15-28 of cycle)</p> <p>300-400mg/day by the placenta during the last trimester of pregnancy</p>	Provera® 2.5mg oral (medroxyprogesterone is a “progestin.” Progestins should never be a substitute for natural progesterone)	=	Natural Progesterone 100mg oral (slow release)
	Prometrium® 100mg	=	Progesterone 10-15 mg cream/day
	Prometrium® 200mg	=	Progesterone 20-30 mg cream/day
<p style="text-align: center;"><b><u>Testosterone</u></b></p> <p><b>Normal Body Production =</b></p> <p>0.25 - 2mg per day (average 0.5 - 1mg)</p>	Estratest® 1.25mg/2.5mg	=	Tri-Est 1.25mg + Testosterone 2mg cream
	Estratest® H.S	=	Tri-Est 0.625mg + Testosterone 1mg cream

- ➔ Topical creams & patches are significantly more potent than oral meds. Oral hormones are extensively metabolized by the liver. Topical hormones are not significantly metabolized. Topical doses are usually 1/5<sup>th</sup> – 1/10<sup>th</sup> of oral doses (assuming complete absorption) **Estradiol 0.5mg oral = Estradiol 0.05mg topical patch = Bi-Est 0.3125mg topical cream**
- ➔ Topical delivery mimics natural secretion patterns. Oral Progesterone is extensively metabolized and has a short half-life. Progesterone cream provides more sustained protection against unopposed estrogen than oral progesterone. Oral progesterone is very sedating. Progestins are not the same as natural progesterone.
- ➔ Topical estradiol alone may not adequately relieve vaginal dryness. We recommend combining estriol with estradiol. Estriol (E3) is the estrogen reported to be most responsible for maintaining optimal bladder and vaginal health. Estriol has the shortest binding time to estrogen receptors.
- ➔ Studies have shown that maximum osteoporosis protection occurs with 0.05 - 0.1mg/day of topical estradiol. Higher doses offer no increased bone benefits.