



**Women's International Pharmacy**  
*Custom Compounded Prescriptions for Men and Women*

## MALE HORMONE THERAPY OPTIONS

The following tables have been compiled by Women's International Pharmacy staff pharmacists to represent some of the more frequently prescribed regimens for men. The Women's International Pharmacy logo is placed throughout the tables to signify the hormones and dosage forms Women's International Pharmacy compounds. Other therapies may be considered and appropriate depending on individual differences.


This material is for informational purposes. It is not intended as a substitute for medical advice. Please consult a qualified health care professional for individual health and medical advice.


*Oral Testosterone*


<b>ORAL TESTOSTERONE</b>			
<b>Bioidentical</b>	<b>Dosages Available</b>	<b>Dosing Regimen</b>	<b>Comments/References</b>
<u>Testosterone</u> in edible oil* capsules (compounding pharmacies) 	Any	25-120mg daily	Brownstein D. <u>The Miracle of Natural Hormones</u> , 3 <sup>rd</sup> Edn. (W. Bloomfield, MI: Medical Alternatives Press) 2003:128.

\* Women's International Pharmacy uses a variety of edible oils when compounding capsules. Other compounding pharmacies may use other fillers.

<b>ORAL TESTOSTERONE</b>			
<b>NON-Bioidentical</b>	<b>Dosages Available</b>	<b>Dosing Regimen</b>	<b>Comments/References</b>
<u>Android®</u> (Valeant) tablets <u>Methitest®</u> (Global) tablets methyltestosterone	10mg, 25mg	10-50mg daily	Generics available. Periodic liver function tests needed because of association with hepatotoxicity with oral methylated androgens. ( <u>Drug Facts And Comparisons</u> ; 2006:259a.)
<u>Testred®</u> (Valeant) capsules <u>Virilon®</u> (Star) capsules methyltestosterone	10mg	10-50mg daily	Generics available. See Android® and Methitest® for further comments.
<u>Halotestin®</u> fluoxymesterone tablets (Pharmacia and Upjohn)	2mg, 5mg, 10mg	5-20mg daily	Generics available. Total daily dose may be administered in single or divided (3 or 4) doses. Periodic liver function tests needed because of association with hepatotoxicity with oral methylated androgens. ( <u>Drug Facts And Comparisons</u> ; 2006:259a, 262a.)

ORAL DHEA			
Bioidentical	Dosages Available	Dosing Regimen	Comments/References
DHEA (dehydroepiandrosterone) in edible oil* capsules (compounding pharmacies) 	Any	5-50mg daily	Brownstein D. <u>The Miracle of Natural Hormones</u> , 3 <sup>rd</sup> Edn. (W. Bloomfield, MI: Medical Alternatives Press) 2003:128. Hertoghe T. <u>The Hormone Solution</u> , (New York, NY: Harmony Books) 2002:264.

ORAL PROGESTERONE			
Bioidentical	Dosages Available	Dosing Regimen	Comments/References
Progesterone in edible oil* capsules (compounding pharmacies) 	Any	2-10mg daily	Brownstein D. <u>The Miracle of Natural Hormones</u> , 3 <sup>rd</sup> Edn. (W. Bloomfield, MI: Medical Alternatives Press) 2003:99. Progesterone may inhibit the 5 $\alpha$ reductase enzyme reaction from testosterone to dihydrotestosterone. (Giacomini M, et al. <i>Journal of Steroid Biochemistry</i> 1980; 13:645-651.) Progesterone may inhibit the aromatase enzyme conversion from testosterone to estrogen. (Schmidt M, et al. <i>Journal of Endocrinology</i> 1998; 158:401-407.)


ORAL PREGNENOLONE			
Bioidentical	Dosages Available	Dosing Regimen	Comments/References
Pregnenolone in edible oil* capsules (compounding pharmacies) 	Any	10-50mg daily to twice daily	Brownstein D. <u>The Miracle of Natural Hormones</u> , 3 <sup>rd</sup> Edn. (W. Bloomfield, MI: Medical Alternatives Press) 2003:178. Regelson W. <u>The Super Hormone Promise</u> (New York, NY: Simon & Schuster) 1996:255.

\* Women's International Pharmacy uses a variety of edible oils when compounding capsules. Other compounding pharmacies may use other fillers.


## TRANSDERMAL PATCHES – TESTOSTERONE

Bioidentical	Dosages Available	Dosing Regimen	Comments/References
<u>Androderm®</u> testosterone (Watson Pharma)	2.5mg, 5mg	1 patch nightly every 24 hours	Apply to clean, dry skin on the back, abdomen, upper arms or thighs, but <b>DO NOT</b> apply to scrotum. ( <u>Drug Facts And Comparisons</u> ; 2006:261.)  Patch should not be cut. ( <i>Pharmacist Letter</i> 1998; 14(7):140712.)


## TOPICAL CREAMS/GELS – TESTOSTERONE-ONLY

Bioidentical	Dosages Available	Dosing Regimen	Comments/References
<u>Testosterone</u> cream, gel or non-alcohol gel (compounding pharmacies) 	Any	25-100mg once to twice daily	Shippen E. <u>The Testosterone Syndrome</u> , (New York, NY: M. Evans and Company) 1998:197. Brownstein D. <u>The Miracle of Natural Hormones</u> , 3 <sup>rd</sup> Edn. (W. Bloomfield, MI: Medical Alternatives Press) 2003:128.
<u>AndroGel®</u> testosterone topical gel (Unimed Pharm)	10mg/gram	25-100mg daily	Contains 67% ethanol. Available in unit dose packets. Each packet contains 2.5 gram or 5 gram of gel. Also available in a metered dose pump which dispenses 1.25 gram doses (12.5mg). Should not be applied to scrotum or penis. ( <u>Drug Facts And Comparisons</u> ; 2006:261.)
<u>AndroGel®</u> testosterone topical gel (Unimed Pharm)	16.2mg/gm	20.25-81mg daily	Contains 67% ethanol. Pump in a low volume formulation. Supplied in a metered pump with a 1.62% concentration. Each 1.25gm pump delivers 20.25mg of testosterone. Apply to shoulders. Do not apply to stomach, penis or scrotum. ( <u>AndroGel®</u> package insert.)
<u>Testim®</u> testosterone topical gel (Auxilium, Inc.)	10mg/gram	50-100mg daily	Contains 74% ethanol. Available in unit dose tubes. Each tube contains 5 grams of gel. Should not be applied to genitals or to the abdomen. ( <u>Drug Facts And Comparisons</u> ; 2006:261.)
<u>Axiron®</u> testosterone topical solution (Lilly)	30mg per pump	60mg (2 pumps) daily to underarm	Supplied in a metered pump with a 2% concentration. Each 1.5gm pump delivers 30mg of testosterone. Each pump delivers 60 metered doses. ( <u>Drug Facts And Comparisons</u> ; 2011:261a-261b.)
<u>Fortesta®</u> testosterone topical gel (Endo Pharmaceuticals, Inc.)	10mg per pump	40mg (4 pumps) daily to thighs.	Supplied in a metered pump with a 2% concentration. Each 0.5gm pump delivers 10mg of testosterone. Pump delivers 120 metered doses. ( <u>Drug Facts And Comparisons</u> ; 2011: 261a-261b.P



### TOPICAL CREAMS/GELS – DHEA-ONLY

Bioidentical	Dosages Available	Dosing Regimen	Comments/References
DHEA (dehydroepiandrosterone) cream or gel (compounding pharmacies) 	Any	25-50mg daily	Sahelian R. <u>DHEA: A Practical Guide</u> (Marina Del Rey, CA: Be Happier Press) 1996:77-79.

### TOPICAL CREAMS/GELS – PROGESTERONE-ONLY

Bioidentical	Dosages Available	Dosing Regimen	Comments/References
Progesterone cream or gel (compounding pharmacies) 	Any	2-10mg daily	Brownstein D. <u>The Miracle of Natural Hormones</u> 3 <sup>rd</sup> edn (W. Bloomfield, MI: Medical Alternative Press) 2003:99.  Progesterone may inhibit the 5 $\alpha$ reductase enzyme reaction from testosterone to dihydrotestosterone. (Giacomini M, et al. <i>Journal of Steroid Biochemistry</i> 1980; 13:645-651.)  Progesterone may inhibit the aromatase enzyme conversion from testosterone to estrogen. (Schmidt M, et al. <i>Journal of Endocrinology</i> 1998; 158:401-407.)



### SUBLINGUAL/BUCCAL LOZENGES, DROPS, TABLETS – TESTOSTERONE




Bioidentical	Dosages Available	Dosing Regimen	Comments/References
Testosterone lozenges (compounding pharmacies) 	Any	25mg once to three times daily	Shippen E. <u>The Testosterone Syndrome</u> , (New York, NY: M. Evans and Company) 1998:197.
Testosterone drops (compounding pharmacies) 	Any	25mg once to three times daily	See reference in Testosterone lozenges.
Striant® testosterone buccal system (Columbia Laboratories)	30mg	1 buccal system twice daily to gum region	Each buccal system adheres to the gum or inner cheek to provide a controlled and sustained release of testosterone. ( <u>Drug Facts And Comparisons</u> ; 2006:262.)

## SUBCUTANEOUS PELLETS – TESTOSTERONE

NON-Bioidentical	Dosages Available	Dosing Regimen	Comments/References
Testopel® testosterone propionate pellets (Bartor Pharmacal)	75mg	150-450mg every 3-6 months	This product contains a bioidentical testosterone, but is chemically bound to other substances. About 1/3 of the pellets is absorbed in the first month, ¼ in the second month, and 1/6 in the third month. ( <u>Drug Facts And Comparisons</u> ; 2006:260.)

## INJECTABLES

Bioidentical	Dosages Available	Dosing Regimen	Comments/References
<u>Testosterone</u> aqueous suspension (compounding pharmacies) 	Various	Injected intramuscularly	Can cause local irritation and absorption isn't always uniform ( <u>Drug Facts and Comparisons</u> ; 2007:259.)
<u>Pregnyl®</u> human chorionic gonadotropin (Organon)	100 mg/ml	Injected intramuscularly	Can cause local irritation and absorption isn't always uniform ( <u>Drug Facts and Comparison</u> ; 2007:259.)
<u>Testosterone</u> pellets (compounding pharmacies) 	10,000 units per 10 ml vial	Injected intramuscularly 125, 250, and 500 IU every other day	Maintains intratesticular testosterone in normal men with testosterone induced gonadotropin suppression. Generics available.
	Various	4 – 6 200 mg pellets implanted subcutaneously	Testosterone blood levels peak at 1 month then sustained in normal range for 4 to 6 months. Requires surgical incision for insertions; pellets may extrude spontaneously. (Bhasin S, et al. <i>Journal of Clinical Endocrinology &amp; Metabolism</i> , Vol 91, Issue 6:1995-2010)

<b>INJECTABLES</b>			
<b>NON-Bioidentical</b>	<b>Dosages Available</b>	<b>Dosing Regimen</b>	<b>Comments/References</b>
<u>Testosterone propionate</u> <sup>^</sup> in oil (compounding pharmacies) 	Various	Injected intramuscularly 50 – 100 mg every other day	Short acting testosterone ester.
<u>Testosterone cypionate</u> <sup>^</sup> in oil (compounding pharmacies) 	Various	Injected intramuscularly 50 – 400 mg every 2 to 4 weeks	Long acting testosterone ester. ( <u>Drug Facts and Comparisons</u> ; 2007:260a.)
<u>Depo-Testosterone</u> <sup>®</sup> testosterone cypionate <sup>^</sup> in cottonseed oil (Pharmacia)	100 mg/ml 200 mg/ml	Injected intramuscularly 50 – 400 mg every 2 to 4 weeks	Long acting testosterone ester. ( <u>Drug Facts and Comparisons</u> ; 2007:260a.) Generics available.
<u>Delatestryl</u> <sup>®</sup> testosterone enanthate <sup>^</sup> in sesame oil (Savient)	200 mg/ml	Injected intramuscularly 50 – 400 mg every 2 to 4 weeks	Long acting testosterone ester. Inject deep into muscle. ( <u>Drug Facts and Comparisons</u> ; 2007:260.)
<u>Testosterone enanthate</u> <sup>^</sup> in ethyl oleate (compounding pharmacies) 	Various	Injected intramuscularly every 2 to 4 weeks	Long acting testosterone ester. Inject deep into muscle.

<sup>^</sup> Bioidentical hormones may be bound to various esters to increase the length of activity. Only when the ester is removed from the hormone by the body does the hormone become bioidentical.