

INTRAMUSCULAR TESTOSTERONE

I.M. testosterone products marketed in Canada* ¹

DIN	Company	Product	Active Ingredient	Strength
00029246	VALEANT CANADA LP/VALEANT CANADA S.E.C.	DELATESTRYL	TESTOSTERONE ENANTHATE	200 MG / ML (approx. 140 mg testosterone)
00030783	PFIZER CANADA INC.	DEPO-TESTOSTERONE INJ 100MG/ML	TESTOSTERONE CYPIONATE	100 MG / ML
02246063	SANDOZ CANADA INCORPORATED	TESTOSTERONE CYPIONATE INJECTION USP	TESTOSTERONE CYPIONATE	100 MG / ML

* Other products are listed in the Drug Product Database but are not currently being marketed

Confirm that ongoing use of testosterone is indicated

- **Approved indication for I.M. testosterone therapy** ²: androgen replacement therapy in adult males for conditions associated with a deficiency or absence of endogenous testosterone.
- **Off-label uses** ³: gender disorder (female-to-male change), post-menopausal hormone replacement, certain cancers, others.

Potential alternatives for I.M. testosterone ¹

DIN	Company	Product	Active Ingredient	Strength
00782327	MERCK CANADA INC	ANDRIOL oral	TESTOSTERONE UNDECANOATE	40 mg
02322498	PHARMASCIENCE INC.	PMS-TESTOSTERONE oral	TESTOSTERONE UNDECANOATE	40 mg
02239653 02245972	PALADIN LABS INC.	ANDRODERM transdermal patch	TESTOSTERONE	12.2 mg (2.5 mg testosterone per day 24.3 mg (5 mg testosterone per day)
02280248	AUXILIUM PHARMACEUTICALS INC.	TESTIM 1% Sgel	TESTOSTERONE	1 % 50 mg testosterone /per prepackaged tube
02249499	ABBOTT LABORATORIES, LIMITED	ANDROGEL metered dose pump	TESTOSTERONE	1 % - 12.5 mg testosterone per actuation
02245346 02245345	ABBOTT LABORATORIES, LIMITED	ANDROGEL 2.5 g/5 g packets	TESTOSTERONE	1 % - 25mg or 50 mg testosterone per packet

Considerations when choosing an alternate form of testosterone:

- Indication for use

Dosage recommendations for androgen deficiency ⁴

- 75–100 mg of testosterone enanthate or cypionate IM weekly
- One or two 5-mg testosterone patches applied nightly
- 5–10 g of a 1% testosterone gel applied daily over a covered area of skin
- Oral testosterone undecanoate 40 – 160 mg daily

Dosage recommendations for female to male transsexual change ⁵

- Testosterone enanthate or cypionate 100–200 mg IM every 2 week or 50% weekly
 - Testosterone gel 1% 2.5–10 g daily
 - Testosterone patch 2.5–7.5 mg daily
 - Oral: testosterone undecanoate 160–240 mg daily
- Testosterone enanthate and testosterone cypionate provide approximately the same concentrations of unesterified testosterone (140 mg per 200 mg of enanthate/cypionate).⁶
 - Ten percent of testosterone in topically applied gels is absorbed. (For example, 5 g of 1 % testosterone gel delivers approximately the same amount of testosterone as one 5 mg testosterone patch).⁷
 - The bioavailability of oral testosterone undecanoate is about 7 % provided it is taken with a meal.⁸
 - Adjust the dose as needed to provide desired effect on symptoms of hypoandrogenism and serum testosterone levels.^{4,5}
 - There is a lower incidence of skin irritation with the gel than with the patch.⁹

Produced by Karen Jensen, MSc, BSP.

Reviewed by Carmen Bell BSP and Gurpreet Nijaar BSP

Posted Feb 6, 2012

References:

1. Health Canada Drug Product Database. Available at <http://webprod3.hc-sc.gc.ca/dpd-bdpp/index-eng.jsp>. Accessed Feb. 3, 2012.
2. Depo-Testosterone monograph. Available at <http://webprod3.hc-sc.gc.ca/dpd-bdpp/info.do?lang=eng&code=1398> . Accessed Feb. 3, 2012.
3. Testosterone. In: DRUGDEX® System [Internet database]. Greenwood Village, Colo: Thomson Healthcare. Updated periodically. Available by subscription. Accessed Feb. 3, 2012
4. Bhasin S, Cunningham G, Hayes F et al. Testosterone Therapy in Adult Men With Androgen Deficiency Syndromes: An Endocrine Society Clinical Practice Guideline Journal of Clinical Endocrinology & Metabolism, June 2010, Vol. 95(6):2536–2559.
5. Hembree W, Cohen-Kettenis P, Delemarre-van de Waal H, et al. Endocrine Treatment of Transsexual Persons: An Endocrine Society Clinical Practice Guideline Clin Endocrinol Metab 2009;94:3132–3154.
6. Delatestryl monograph. Available at <http://webprod3.hc-sc.gc.ca/dpd-bdpp/info.do?lang=eng&code=1275>. Accessed Feb. 3, 2012.
7. Testosterone . In Lexi-Comp Online® , Lexi-Drugs Online™ , Hudson, Ohio: Lexi-Comp, Inc.. Available by subscription. Accessed Feb. 3, 2012.
8. Andriol monograph. Available at <http://webprod3.hc-sc.gc.ca/dpd-bdpp/info.do?lang=eng&code=13411>. Accessed Feb. 3, 2012.
9. Regier L. Testosterone agents. RxFiles charts. Available at <http://www.rxfiles.ca/rxfiles/uploads/documents/members/cht-Androgens.pdf>. Accessed Feb. 6, 2012.