

Injectable and Oral Testosterone Shortage

Injectable testosterone products marketed in Canada¹

DIN	Manufacturer	Product	Active Ingredient	Strength
00029246	Bausch Health	Delatestryl	Testosterone Enanthate	200 mg/ml
00030783	Pfizer	Depo-Testosterone	Testosterone Cypionate	100 mg/ml
02496003	Taro	Taro-Testosterone Cypionate Injection	Testosterone Cypionate	100 mg/ml

Oral testosterone products marketed in Canada¹

DIN	Manufacturer	Product	Active Ingredient	Strength
02322498	Pharmascience	PMS-Testosterone	Testosterone Undecanoate	40 mg
02421186	Taro	Taro-Testosterone	Testosterone Undecanoate	40 mg

Confirm that ongoing use of testosterone is indicated

- **Approved indication for injectable and oral testosterone therapy^{2,3}:** testosterone replacement therapy in adult males for conditions associated with a deficiency or absence of endogenous testosterone.
- **Off-label uses⁴:** hormone therapy for transgender males, sexual disorder, weight gain, others.

Potential alternatives for injectable and oral testosterone*¹

DIN	Product	Strength	Dosage Form	Manufacturer
02249499		1% (12.5 mg/actuation)		
02245345	Androgel	1% (25 mg/pack)	transdermal gel	BGP
02245346		1% (50 mg/pack)		
02463792	Taro-Testosterone	1% (25 mg/pack)	transdermal gel	TAR
02463806	Gel	1% (50 mg/pack)		
02280248	Testim	1% (50 mg/tube)	transdermal gel	PAL
02450550	Natesto	4.5% (5.5 mg/actuation)	nasal gel	ACP

* All doses expressed as amount of testosterone delivered

Considerations when choosing an alternate form of testosterone:

- **GENERAL dosage recommendations for androgen deficiency**
 - Testosterone enanthate or cypionate⁴⁻⁶: various doses and frequencies may be used.
 - Usual: 100 - 200 mg IM every 2 weeks⁵
 - doses may range from 50 to 200 mg⁴⁻⁶
 - frequencies may range from every 1 week to every 3-4 weeks⁴⁻⁶ (though the longer the interval, the greater the fluctuation in concentrations⁶)
 - off-label subcutaneous (SC) administration is also used^{4,6}

- initial dosage: 75 mg every 1 week⁴
 - Testosterone transdermal gel 1%:
 - 50 mg – 100 mg applied daily to shoulder/upper arms^{5,6}
 - Testosterone undecanoate:
 - 40 – 160 mg orally per day, divided in two doses⁵
 - Testosterone intranasal gel 4.5%:
 - 5.5 mg (1 pump) into each nostril 2 or 3 times daily (total daily dose = 22 – 33 mg)^{5,6}
- **GENERAL dosage recommendations for hormone therapy in transgender males**
 - Testosterone enanthate or cypionate:
 - 50-100 mg weekly or 200mg every 2 weeks either IM or SC^{4,7}
 - Testosterone transdermal gel 1%:
 - 50-100 mg daily
 - Note: oral testosterone undecanoate is not commonly used for this indication due to multiple administrations, short half-life, unpredictable absorption, and fluctuating testosterone serum levels.⁸
- Testosterone enanthate and testosterone cypionate provide approximately the same amount of unesterified testosterone (~140 mg per 200 mg of enanthate/cypionate).^{2,5}
- Approximately 10% of testosterone in transdermally applied gels is absorbed.⁵ (For example, 50 mg testosterone gel delivers approximately the same amount of testosterone as one 5 mg testosterone patch.)
- The bioavailability of oral testosterone undecanoate is about 7% provided it is taken with a meal.⁹
- Adjust the dose as needed to provide desired effect on symptoms of hypoandrogenism and serum testosterone levels.⁵⁻⁷

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