Intramuscular Testosterone

Intramuscular (IM) testosterone products marketed in Canada*¹

* Other products have been approved but are not currently being marketed.¹

Confirm that ongoing use of testosterone is indicated
- **Approved indication for IM testosterone therapy**: androgen replacement therapy in adult males for conditions associated with a deficiency or absence of endogenous testosterone.
- **Off-label uses**: hormone therapy for transgender males, sexual disorder, weight gain, others.

Potential alternatives for IM testosterone*¹

<table>
<thead>
<tr>
<th>DIN</th>
<th>Manufacturer</th>
<th>Product</th>
<th>Active Ingredient</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>00029246</td>
<td>Valeant</td>
<td>Delasteryl</td>
<td>Testosterone Enanthate</td>
<td>200 mg/ml</td>
</tr>
<tr>
<td>00030783</td>
<td>Pfizer</td>
<td>Depo-Testosterone</td>
<td>Testosterone Cypionate</td>
<td>100 mg/ml</td>
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</tbody>
</table>

* 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 cypionate⁴,⁵: various doses and frequencies may be used.
    - general: 75 - 100 mg IM/subcutaneous (SC) every week
    - doses may range from 50 to 200 mg
    - frequencies may range from every 1 week to every 3-4 weeks (though the longer the interval, the greater the fluctuation in concentrations⁶)
  - Testosterone transdermal gel 1% 50 mg – 100 mg⁴,⁶ applied daily to an area of skin that will be covered.
  - Testosterone transdermal patch usual dose 5 mg applied nightly⁴,⁷ Dose range: 2.5 mg to 7.5 mg nightly⁴
  - Testosterone undecanoate 40-120-160 mg orally per day, divided in two doses RxFiles⁴,⁸
  - Testosterone intranasal gel 4.5%: 5.5mg (1 act.) into each nostril 2 or 3 times daily (total daily dose = 22 – 33 mg)⁹
• **GENERAL dosage recommendations for hormone therapy in transgender males**
  
  - Testosterone enanthate or cypionate 100–200 mg IM every 2 weeks or 50% SC weekly
  - Testosterone gel 1% 50-100 mg daily
  - Testosterone patch 2.5-7.5 mg daily
  - Note: oral testosterone undecanoate results in lower serum testosterone levels than non-oral preparations and has limited efficacy in suppressing menses.

  - Testosterone enanthate and testosterone cypionate provide approximately the same amount of unesterified testosterone (~140 mg per 200 mg of enanthate/cypionate).
  - Approximately 10% of testosterone in topically applied gels is absorbed. (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.
  - Adjust the dose as needed to provide desired effect on symptoms of hypoandrogenism and serum testosterone levels.
  - Gel is generally better tolerated than patch.

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**References:**