## **Pros and Cons of Various Testosterone Therapy Treatments\***

Product Type	Application Method	Frequency	Pros	Cons
Testosterone Injections	Injection, usually into the thighs, glutes or deltoid muscles.	Weekly or Bi- weekly (weekly suggested)	<ul> <li>Least expensive treatment type (generics available)</li> <li>Weekly injections minimize testosterone level "spikes"</li> <li>Consistently level distribution of testosterone into bloodstream</li> <li>Weekly injections allow for close monitoring &amp; flexible management and/or adjustment of dosage/T levels</li> </ul>	<ul> <li>T levels can fluctuate between injections, especially if bi-weekly</li> <li>Possible initial pain at injection site, usually alleviated with adjustments to the oil base</li> <li>Weekly clinic visit for shot, unless patient is comfortable with self-injection</li> </ul>
Testosterone Gels	Rubbed onto stomach, shoulders, pectorals, or inner thighs	Daily	<ul> <li>Skin absorption produces steady release of testosterone; decreases "spikes"</li> <li>Dosage easily modified</li> <li>Brand name and generics available</li> </ul>	<ul> <li>Daily application required</li> <li>Many reported adverse skin reactions</li> <li>Risk of exposure to others via contact</li> <li>Gels often fail to raise testosterone to fully normal levels</li> <li>Gel absorption rate decreases over time</li> </ul>
Testosterone Patches	Patch applied to skin on the back, thighs, abdomen or arms	Daily (wear 24 hours and replace)	<ul> <li>Easy application, self-administered</li> <li>Skin absorption produces steady release of testosterone; decreases "spikes"</li> </ul>	<ul> <li>Itching, irritation and rash at application sites</li> <li>Application site must be changed daily</li> <li>Sweating or exercise may dislodge, risking missed doses or exposure to children, pets</li> </ul>
Testosterone Lozenges	Lozenge placed under the tongue or against the gum's surface	Every 12 hours	<ul> <li>Self-administered</li> <li>Dosing easy to modify between applications</li> <li>Gum absorption avoids the liver damage risk of swallowing testosterone</li> </ul>	<ul> <li>Gum-related irritation or discomfort</li> <li>Lozenge maintained in mouth for 12 hours</li> <li>Replacement needed twice daily</li> <li>Saliva becomes a potential transfer risk</li> <li>Often fails to raise testosterone to fully normal levels</li> </ul>
Testosterone Nasal Gel	Metered-dose pumped into each nostril	3 times daily (every 6-8 hours)	<ul><li>Easy-to-use, self-administered</li><li>No risk of transfer</li></ul>	<ul> <li>Frequent application required</li> <li>Not suitable for those with existing or recent sinus or nasal conditions/problems</li> <li>May not raise testosterone to fully normal levels</li> <li>Can cause nosebleeds</li> </ul>
Testosterone Pellet Implants	Implants inserted under skin via a small, surgical incision with local anesthesia	3 to 6 months	<ul> <li>Implant system promotes level distribution of testosterone into bloodstream</li> <li>Extensive medication duration between treatments</li> <li>No risk of transfer</li> <li>Procedure typically 15 minutes or less</li> </ul>	<ul> <li>Requires specifically trained physician, with an approved surgical environment</li> <li>Testosterone spikes can be extreme after pellet insertion, causing unhealthy increase of red blood cell count and estradiol level</li> <li>Higher risk of site infection versus other applications</li> <li>Possible extrusion causing pellets to come out of skin</li> <li>Any dosage adjustments require another surgical procedure (to add or remove pellets)</li> <li>Testosterone often drops to drastically low levels between insertions of pellet(s)</li> </ul>

<sup>\*</sup> The statements and statistics charted above are a compilation of medically recognized industry and FDA Approved, prescription-only product averages, As averages, individual results, reactions, pros, cons and treatment frequencies may vary.