TESTOSTERONOLOGY SOCIETY™

Testosterone Formulations

Generic	Brand	Strength	Route	Half Life	Dosing	Pearls
Testosterone Cypionate[1] *** Compounding available with various carrier oils and excipients.**	Depo-Testosterone Azmiro	200 mg/mL Or 100 mg/mL (less common)	IM/SubQ	~8 days	Starting dose for most men **70-100 mg every 5-7 days.** Dose on an individual basis but frequency should be every 7 days **at the longest.**	• Gold Standard for TRT. • Cheap and Easy to access. • Potential for high peaks and low troughs due to long half-life. • Microdosing over a shorter dosing interval can be useful strategy for patients who experience adverse effects but can increase injection burden. • Using compounded variations can be helpful for excipient and dose optimization for patients.
Testosterone Enanthate[2] *** Compounding available with various carrier oils and excipients.**	Delatestryl, Xyosted	200 mg/mL	IM/SubQ	4.5-7 days IM* References are unclear	Dose on an individual basis but frequency should be **every 7 days at the longest.** Xyosted: Start 75 mg SubQ every 7 days. Target nadir 350-650 ng/dL total T. Increase by 25 mg/week if < 350 and decrease by 25 mg/week if trough >= 650 ng/dL.	• Some insurance issues may arise with Xyosted if prescribed at a higher frequency than every 7 days. • Xyosted is available in auto injector form which might be comfortable for the patient but can be challenging to find the perfect dose.

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Testosterone Propionate[14] *** Compounding available with various carrier oils and excipients.**	Commercially not Available in the USA.	100 mg/mL	IM	2-3 days per dosing regimen	25-50 mg 2-3 times every week or 50-100 mg every other day in male athletes.	All information obtained from Llewellyn's Anabolics 11th Edition which is not a typical medical text.
Testosterone Undecanoate[3]	Aveed Nebido (abroad)	250 mg/mL	IM	~3 months	750 mg x 1 then 750 mg after 4 weeks (loading) then 750 mg every 10 weeks.[5] In Europe/Abroad: 1 gm IM Q3Months.	• Administered in office by a healthcare professional. • Patients should be observed for 30 mins after administration.
Testosterone Esters[5]	Sustanon 250 *Not available in the USA	250 mg/mL	IM	Variable due to variety of esters	Pkg insert: Every 3 weeks Should be injected every 7 days[14]	• Formulated in Peanut oil (ALLERGIES) • Contains 30 mg/mL propionate, 60 mg/mL phenyl propionate, 60 mg/mL isocaproate, 100 mg/mL decanoate
Testosterone[4]	Testopel	75 mg/pellet	SubQ	Variable	150 mg-450 mg every 3-6 months[6]	• Pellets extrude from the skin. • Very difficult to adjust dose. • 2 pellets for each 25 mg testosterone propionate required weekly[4]

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Testosterone Gel[6] ***Compounding Available** ***Scrotal gel also available through compounding with a disproportionately elevated DHT levels due to high 5-alpha-reductase activity in the scrotum17**	Androgel/ Vogelxo/Testim	1% Androgel: 25 mg/2.5 gram or 50 mg/5 gram Volgelxo: 50 mg/ 5 gram or 12.5 mg/pump Testim: 50 mg/5 gram	Topical	Reaches steady state by day 2 or 3	50 mg QAM to **shoulders and upper arms or abdomen** starting and increase to 75 mg or 100 mg based on response	• Good option for fear of needles. • Allow area to dry before dressing • Flammable • Avoid swimming or showering by at least 5 hours. • Avoid contact with others, especially women or children.
Testosterone Pump[6] ***Compounding Available**	Androgel	1.62% 20.25 mg/pump 20.25 mg/1.25 gram or 40.5 mg/2.5 g	Topical		40.5 mg QAM **shoulders and upper arms or abdomen**. Dose adjustments are made in 20.25 mg increments w/ the pump	• Allow area to dry before dressing • Flammable • Avoid swimming or showering by at least 5 hours. • Avoid contact with others, especially women or children.
Testosterone Gel[7] ***Compounding Available**	Fortesta	2% 10 mg/0.5 gram	Topical		40 mg QAM to the **thighs**. Dose adjustments are made in 10 mg increments w/ the pump.	• Allow area to dry before dressing • Flammable • Avoid swimming or showering by at least 2 hours. • Avoid contact with others, especially women or children.
Testosterone Topical Solution[8] ***Compounding Available**	Axiron	30 mg/1.5 mL	Topical	Reaches steady state within 14 days.	60 mg QAM to the **axilla** using the applicator. Dose adjustments are made in 30 mg increments w/ the pump	• Flammable • Avoid swimming or showering by at least 2 hours. • Apply deodorant BEFORE applying Axiron.

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Generic	Brand	Strength	Route	Half Life	Dosing	Pearls
Testosterone Transdermal Solution[9] ***Historically available as a scrotal patch. No longer on the market.**	Androderm	2 mg/day or 4 mg/day	Transdermal	70 minutes	4 mg Androderm system applied to **the back, upper arms, abdomen or thighs** QPM. Dose adjustments are made in 2 mg/day increments using the 2 mg patches.	• Avoid swimming or showering by at least 2 hours. • Itching is the most common adverse event. • To discard, fold the patch in half and discard in household trash.
Testosterone Nasal Gel[10]	Natesto	5.5 mg/0.122 gram	Intranasal	-	2 actuations (11 mg) TID	• TID dosing along with a Cmax of 1044 ng/dL (40 mins after administration) and a Cmin of 215 ng/dL • Weak evidence of preserving fertility[15,16] • Discontinue temporarily with severe rhinitis.
Testosterone Undecanoate Oral Capsule[11,12,13]	Jatenzo/ Kyzatrex/ Tlando	Jatenzo: 158, 198 and 237 mg capsules. Kyzatrex: 100, 150, and 200 mg capsules. Tlando: 112.5 mg capsule	PO	2 hours	Jatenzo: 158-396 mg BID with food Kyzatrex: 100-400 mg BID with food Tlando: 225 mg BID with food	• Different formulations are not interchangeable. • No Hepatotoxicity noted. • PO is the easiest route of administration for adherence. • See package inserts for recommended dosing and titrations.

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References:

1. **Testosterone cypionate injection [package insert]**. Northstar Rx/AccessData. December 2022. FDA Access Data

2. **XYOSTED (testosterone enanthate) [package insert]**. AccessData (FDA). 2019. FDA Access Data

3. **AVEED (testosterone undecanoate) [prescribing information]**. AveedUSA.com (HCP site). Latest. Aveed USA+1

4. **Testopel (testosterone pellets) [package insert]**. Endo USA, Inc. Latest. TestOpel

5. **Sustanon 250 (testosterone mixture) [patient information, UK]**. Medicines.org.uk / EMC. Latest. Medicines.org.uk+1

6. **AndroGel (testosterone gel) [package insert]**. AccessData (FDA). 2013. FDA Access DataANDROGEL

7. **Fortesta (testosterone topical gel) [dosage guide/info]**. Drugs.com. ~July 2025. Drugs.comhims

8. **Axiron (testosterone topical solution) [product monograph/info]**. AccessData (FDA) & DailyMed. Latest. FDA Access DataDailyMed

9. **Androderm (testosterone transdermal system) [patient information / prescribing information]**. AccessData (FDA). May 2020. FDA Access Data

10. **Natesto (testosterone nasal gel) [full prescribing information]**. Natesto.com. ~2019. natesto.comMedscape Reference

11. **Jatenzo (oral testosterone undecanoate) [prescribing information]**. Jatenzo.com. ~2023. Jantenzo Patient -+1

12. **Kyzatrex (oral testosterone undecanoate) [highlights of prescribing information]**. AccessData (FDA). ~2022. FDA Access DataKyzatrex

13. **Tlando (oral testosterone undecanoate) [prescribing information]**. Tlando.com. Feb 2024. tlando.comDrugs.com

14. **Llewellyn W. *Anabolics*. 11th ed. Jupiter, FL: Molecular Nutrition; 2017.**

15. **Naelitz BD, Momtazi-Mar L, Vallabhaneni S, et al. Testosterone replacement therapy and spermatogenesis in reproductive age men. *Nat Rev Urol*. 2025;22(10):703-719. doi:10.1038/s41585-025-01032-8.**

16. **Ramasamy R, Masterson TA, Best JC, et al. Effect of Natesto on Reproductive Hormones, Semen Parameters and Hypogonadal Symptoms: A Single Center, Open Label, Single Arm Trial. *J Urol*. 2020;204(3):557-563. doi:10.1097/JU.0000000000001078**

17. **Korenman SG, Viosca S, Garza D, et al. Androgen therapy of hypogonadal men with transscrotal testosterone systems. *Am J Med*. 1987;83(3):471-478. doi:10.1016/0002-9343(87)90757-1**

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