

# Testosterone administration

## Practical tips for health professionals

Visual overview of available formulations of injectable testosterone

**NB: this is not patient information.** Useful resources for patients wishing to self-administer Sustanon or Depo-testosterone can be found here: [Transgender health injection guide](#)



### Reandron

(testosterone undecanoate)

Comes in a vial. Usually given 12-weekly. Single use vial, dose up to 4mL.



### Sustanon

(testosterone esters)

Comes in a glass ampoule. Single use, usually given 3-weekly. Can be self-administered.



### Depo-testosterone

(testosterone cypionate)

Comes in a vial, each vial contains 5-10 doses. Usually given fortnightly. Can be self-administered.

#### General advice for all formulations:

- The first injection can be very significant for people – they may have waited a long time to start. Important not to rush; ensure privacy.
- Obtain and document consent, ensure person is aware of potential side effects.
- All formulations should be administered slowly.
- 20-minute wait after the first injection is recommended in case of allergy.

#### Storage

- All formulations need to be stored below 30°C (e.g. in a cool cupboard away from direct sunlight). Do not refrigerate or freeze.
- Sustanon should be used immediately once the ampoule is open as it cannot be resealed.

#### Preparation

- As with all medicines, check expiry date first, and '5 rights of medication administration' (the right person, drug, dose, route, time).
- Slightly warming the formulation beforehand in one's hands it easier to prepare and administer.
- Injecting the same volume of air as the dose required into the vial for Reandron and Depo-T can break the vacuum and make it easier to draw up the liquid, but this is not essential. This will not be possible with Sustanon.
- Always check for air bubbles in the syringe and remove prior to administration.

### **Administration**

- As with any deep intramuscular injection the *ventrogluteal* site is the best administration site for all formulations: reported to be less painful, less risk of injury to underlying nerve structures, less risk of oil embolism as no major blood vessels, and usually less adipose tissue and more muscle. However, it can be given in the *dorsogluteal* site. The same site should not be used every time, so rotate between left and right side each injection.
- Can be given standing or supine per personal preference (supine recommended for Reandron). People self-administering their testosterone usually use the vastus lateralis or rectus femoris sites as better access.
- All formulations are given as a deep intramuscular injection so best use a 38mm (1.5”) 22 G needle to administer. Important to inject into deep muscle as testosterone can cause necrosis or abscess formation if given too superficially/into adipose tissue.
- Depo T can also be given subcutaneously but there is not yet enough evidence around the safety and efficacy of giving Sustanon via this route. Note that the dose and regime for subcutaneous administration of Depo T is not the same as for the intramuscular route.
- As with all intramuscular injections, Z-track technique is recommended to prevent tracking of the medication into the subcutaneous tissue.
- Always aspirate first before injecting solution to ensure the needle is not in a blood vessel.
- All formulations should be administered *slowly* and at a steady, controlled pace.

### **Disposal**

- Some people like to keep their ampoules/ vials so check first before disposal.
- Dispose of all syringes per usual protocol, e.g. via a sharps bin.
- Local needle exchanges often have facilities for safe sharp disposal for self-administration.

### Reandron

- Ideally given over 4 minutes, very thick solution so takes time, be patient!
- Doses should not be split (i.e. needs to be given as 4ml dose not 2 x 2ml).
- Use an 18G needle to draw up medication then change to 38mm 22G or 21G needle to administer.
- For dose of 3ml or less, use a 3ml syringe as resistance will be less. For a dose of 4ml use a 5ml syringe.

### Sustanon

- Contains arachis oil – check no peanut allergies first.
- When breaking the top, have the 'small blue dot' facing away from you. This indicates the weakest point of the vial. You can then break the vial by snapping the top off towards you. Use a gauze or tissue to do this to protect your fingers from the glass – can be sharp.
- Use a blunt filter needle in case of glass fragments to withdraw solution into the syringe.
- Change to 38mm 22G needle when ready to administer.
- Use a 1ml tuberculin syringe or 3ml syringe, depending on dosage. For a dose of 1ml, a 3ml syringe is usually easier to prepare.

### Depo-testosterone

- Use within 28 days.
- Use alcohol swab to clean the rubber bung each time before drawing up (allow time to dry).
- Replace lid and secure until next visit.
- Can use 18G needle to draw up medication then change to 38mm 22G needle to administer.
- Can use 1ml tuberculin syringe or 3ml syringe, depending on dose.