

## Subcutaneous injection administration of vaccine

**Administering vaccine by subcutaneous injection is straightforward and effective, but attention to detail is necessary for successful immunisation.**

The four critical factors for subcutaneous injection are:

1. Well maintained high quality vaccination equipment.
2. Good facilities for handling the birds.
3. Plenty of staff to maintain efficient workflow.
4. Staff that are skilled at vaccinating consistently.

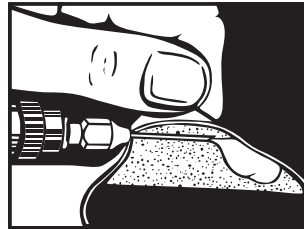
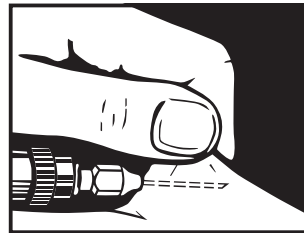
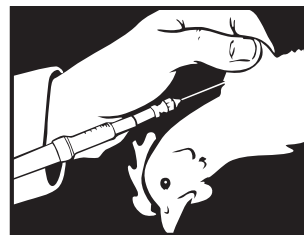
### Preparation before vaccination day

1. Check that the required vaccination equipment is available and serviceable
  - vaccination gun (plastic single use / metal re-useable),
  - needles (20G x ½" or 18G x ½")
  - draw off tubes (27mm European or 30 mm American)
2. Thoroughly wash out metal re-useable vaccination guns with boiling hot water.
3. Check the vaccination gun is operating (ball valves may stick after storage).
4. Check the vaccination gun delivers the correct dose. Measure the volume of 10 doses, e.g. 10 x 0.5 ml = 5 ml.
5. If necessary obtain a service kit from Pacificvet and replace the o-rings, springs, balls and seals.
6. The day before vaccination take the vaccine from the refrigerator so it may come to room temperature (22°C) overnight.

### On vaccination day

1. Attach the draw off tube to the vaccinating gun.
2. Put a needle on the vaccinating gun, but leave the cap on the needle.
3. Shake the vaccine and put the bottle into a bottle holder or attach a lanyard.
4. Remove the centre section of the metal bottle cap to expose the top of the rubber bung.
5. Plunge the draw off tube's spike through the centre of the rubber bung and press the spike down until the plastic shroud clicks over the metal cap and is seated firmly onto the bottle.
6. Invert the bottle. Remove the needle cap. Pump the gun repeatedly to fill the draw off tube and gun barrel with vaccine. The vaccinator is ready to use.
7. Birds should be held securely by the legs - gently but firmly.
8. The person giving the vaccination pinches the bird's skin in the dorsal midline on the top of the neck to form a tent of skin where the neck joins the body.
9. Align the needle to point rearwards towards the chicken's body.
10. Insert the needle through the skin into the space formed by the skin tent. The needle point must be in the subcutaneous space under the skin and above the muscle.
11. Depress the plunger to deposit the vaccine. Pause momentarily so the vaccine can occupy the subcutaneous space. If the needle is withdrawn prematurely vaccine may leak out of the hole in the skin.

12. Take care not to inject the vaccine into the muscle around the vertebrae.
13. Take care the needle does not exit the skin on the far side of the skin tent, otherwise the vaccine will be discharged into the air.
14. Change the needle when the bottle is changed (after 1000 doses).



### After vaccination

1. Document the vaccination in flock / shed records.
2. Dispose of empty vaccine bottles and used draw off tubes.
3. Dismantle and thoroughly wash out metal re-useable vaccination guns with boiling hot water. Do not use detergent or sanitisers.

### N.B.

1. Follow the instructions on the package insert carefully. Do not take short cuts.
2. Give one full dose of vaccine per bird.
3. Use vaccine within 10 hours after opening. Dispose of any unused vaccine.

### Accidental self-inoculation

Accidental self-injection may result in severe pain and swelling. If you are accidentally injected with an inactivated vaccine seek immediate medical advice. Take the package insert and vaccine label to the clinic with you.