How-to guide: needle removal and haemostasis

Whether you are new to dialysis or have being undergoing treatment for a while, removing a needle is an important part of each session. It must always be done carefully to prevent a blood vessel from tearing. Correct removal also minimises access trauma and helps achieve optimal haemostasis. While a skilled nurse always performs haemostasis of the very first cannulation, you can get involved in future treatments. Here’s an overview of how you can participate – if you would like to, of course.

Your step-by-step guide

**STEP 1 – Prepare the materials.** A nurse always prepares the materials required for needle removal and stopping the blood flow. Patients who wish to participate must be able to apply pressure on the vascular access. If this isn’t the case for you, a nurse will always take over. Assuming you can and would like to assist, the nurse will ask you to put on gloves during this step.

**STEP 2 – Remove the needle.** The nurse stabilises the needle and carefully removes any tape. This prevents excessive manipulation, which may damage the access wall and enlarge the cannulation site. If your skin is dry, the nurse will take great care not to damage it. The needle should always be withdrawn slowly, maintaining the same angle of insertion until the entire needle has exited. Wait until the needle has been completely removed before applying pressure to prevent damage to the vessel wall. Take great care not to move your arm while the nurse is removing the needle.

**STEP 3 – Compress.** To help prevent bruising, compressing with two fingers is key. Place one finger over the external insertion site (your skin) and the second on the internal insertion site (the vessel entry), see Fig. 2. Apply pressure that is strong enough to stop the bleeding, but not so strong that it stops blood flow through the vascular access. Compression that restricts blood flow may cause the access to clot.

For haemostasis it’s important to wear a glove and compress with two fingers.
STEP 4 – Check for thrill. Thrill (a vibrating sensation) should be felt above and below the site of pressure. If thrill is absent, reduce pressure on the access until you can feel it. Why check for thrill above and below the pressure sites? To ensure compression is not restricting blood flow through the vascular access. The time required for haemostasis varies from patient to patient, but usually takes around 8–12 minutes. The process is complete when there are no signs of bleeding after releasing pressure from the site.

STEP 5 – Apply a plaster. Once haemostasis is completed the nurse will apply a haemostatic plaster or tape sterile gauze over the site. The tape should not be wrapped completely around the arm. Doing so can create a tourniquet effect, restricting blood flow. Thereafter, the nurse will check for your pulse above and below the dressing. When the plaster is in place, you can remove your glove. It’s important to keep the cannulation site protected until a scab has formed.

What is haemostasis?
It is the medical term for the stoppage of bleeding. For haemodialysis patients, haemostasis must occur after needle removal.

The right home care
Bleeding at a cannulation site while at home is rare, but should it happen you should first apply pressure to the site like in the dialysis centre. Wait for at least five minutes, then check to see if it has stopped. If it has, apply a new plaster. If it is still bleeding, reapply pressure. Contact your dialysis centre if bleeding continues after 30 minutes.

Thanks to all patients who participate in the haemostasis, though there is no pressure to do so. If you are interested in learning about haemostasis and your treatment, please reach out to your nurse.

DOs AND DON’Ts
Here are some essential Dos and Don’ts to remember when participating in haemostasis:

DO apply pressure by using two fingers, only after the needle has been completely removed.

DO hold for 8–12 minutes without checking.

DO allow the nurse to hold for up to 20 minutes without checking, after the very first cannulation.

DON’T forget to check for thrill above and below the site of pressure.

DON’T check too early: doing so breaks the forming clot and re-starts bleeding.

DON’T wrap tape around your arm.