Preparing for Vascular Access Surgery

Information for patients and families

Read this booklet to learn:

• why you need vascular access for hemodialysis
• what an AV graft and an AV fistula is
• what to expect with this procedure
• who to call if you have any questions

Check in at:

Toronto General Hospital
Surgical Admission Unit (SAU),
Peter Munk Building – 2nd Floor

Date and time of my surgery:

Date: ___________________________ Time: ________________

*Remember: You need to arrive at the hospital 2 hours before surgery
Why do I need vascular access surgery?

If you need hemodialysis, you need a vein that is easy to find and use. Vascular access surgery makes an access site for the hemodialysis. This is called an arteriovenous (AV) access.

An AV access connects your artery directly to your vein. If this is not possible, a soft plastic tube will be used to connect your artery and vein.

How does my AV access work during hemodialysis?

Before hemodialysis (or dialysis), your nurse will put 2 needles into your AV access. One needle takes the blood from your body to the artificial kidney (dialyzer). This cleans your blood. The second needle returns the clean blood back to you.

Only a small amount of blood (about 1 cup) is removed from your body at one time. At the end, your nurse removes both needles and puts bandages where the needles were put in. You can take the bandages off the next day.
Your AV access will usually be in your forearm or upper arm. There are 2 types of AV access your surgeon could give you. One is an AV graft. The other is an AV fistula.

**AV Graft**
For an AV graft, your surgeon puts a small, artificial tube in your arm. It acts like a vein. Your surgeon connects one end of the tube to your artery. The other end is connected to your vein.

Your surgeon might also put an AV graft in as a straight tube instead of a “U” shaped loop. Your AV graft is ready for dialysis about 2 to 4 weeks after your surgery.

If you need dialysis sooner, your surgeon may be able to put in a special AV graft. It can be used 2 days after your surgery.
AV Fistula
For an AV fistula, your surgeon sews an artery and a vein together.

Your AV fistula is ready for dialysis about 1 to 4 months after surgery. It takes time for your fistula to become strong enough for dialysis.

For both AV graft and AV fistula
We use your non-dominant arm whenever possible. For example, if you are right handed, we will put your access in your left arm. This leaves the arm you use most often free during dialysis.

How will I know which one I need?
Your surgeon will decide which one is best for you. They may do a “vein mapping.” This is an ultrasound of your arm veins.

If your veins and arteries are a good size, they will do an AV fistula. If they are too small, they will do an AV graft.
What can I expect?

Here are the steps you will go through:

1. **Your clinic appointment**
   At your clinic appointment, you will meet with your surgeon. You will:
   - find out what type of vascular access is best for you
   - talk about the procedure
   - ask any questions you might have
   - be asked to sign a consent form. The consent form gives us your permission to do the surgery at a later date.

   You will also meet with your Vascular Access Co-ordinator. Your co-ordinator will talk to you about:
   - what to expect before and after surgery
   - some possible complications (difficulties) during or after surgery
   - caring for your graft or fistula
   - arrange a follow up appointment for you

2. **Your Pre-Admission Visit**
   This appointment will be scheduled before your surgery date and will take 2 to 3 hours. You may eat and drink and take all of your usual medications before this appointment. If you need to go to the Pre-Admission clinic, the hospital will call you with a date and time.

   **Please go to:**
   TGH Pre-Admission Clinic Eaton South
   Ground Floor (Room 400)
   Phone: 416 340 4800 extension 3529
What should I bring to my Pre-Admission Clinic visit?

On the day of your Pre-Admission Clinic appointment, you must bring:

• Your Ontario Health Card (OHIP). If you do not have an OHIP card, please bring another form of government-issued photo ID (such as a driver’s license, passport, or other provincial health card).

• All your medications in their original bottles, and a complete medication list including prescription and non-prescription medications, vitamins, herbals and supplements.

What will happen at my Pre-Admission clinic visit?

During this visit, we may take blood samples, do a chest x-ray, electrocardiogram (ECG), nursing assessment and an anesthesiologist may see you. This will help to prepare you for your surgery.

Meeting with your anesthetist

Your anesthetist is a person specially trained to give you medicine to keep you comfortable during surgery. During your meeting, your anesthetist will ask you questions about your health. They will also talk to you about the anesthetic (medicine) that is best for you during your surgery.

During surgery, you could have:

• a general anesthetic (will make you sleep during surgery)

• or a local anesthetic (will freeze the surgery area only) and a sedative (a medicine to help you relax and stay comfortable)

• a regional anesthetic. This is also called a nerve block. A nerve block will make the part of your body that is operated on numb. In this case, your arm will be numb during the surgery and about 1 day after.
Please tell the anesthetist if you are taking a “blood thinning” medication such as ASA (Asprin), Warfarin (Coumadin) or Clopidogrel (Plavix)

- You will need to get more information about what to do about these medications before your surgery.

The night before your surgery

Fasting guidelines (when to stop eating and drinking before surgery)

- The night before your surgery, eat a light supper only with no fried foods or alcohol.
- You may eat and drink up until midnight (12:00 am) before your day surgery.
- Do not eat any solid food or drink liquids after midnight (12:00 am). This includes chewing gum or candy.
- Do not drink alcohol for 24 hours before your surgery.

Day of the procedure

Important information about your medications:

- On the morning of surgery, take only the medications that your doctor or nurse has asked you to take with a sip of water.
- If you are not sure which medications to take before your surgery, call the Pre-Admission Clinic nurse at 416 340 4800 extension 2200.
Coming to the hospital

- You need to arrive 2 hours before your surgery. For example, if you are having surgery at 11:00 am, you need to get to the hospital by 9:00 am.

- If you are late, your surgery may be cancelled.

- Please come to the TGH Surgical Admission Unit (SAU), Peter Munk Building, 2nd Floor (see map).

If you wish, you may bring up to 2 family members with you to this area. They can stay with you until you go into surgery.

Just before the surgery, the nurses will:

- ask you to change into a hospital gown
- check your blood pressure
- take some blood to check your potassium count
- ask you a number of questions from their surgical checklist
When can I go home?

You will go home on the same day as your surgery. Please have someone pick you up and stay with you for the night. If this is not possible please call the Vascular Access Co-ordinator before your surgery date.

If you don’t arrange for someone to pick you up and take you home, your surgery will be cancelled.

Who can I call if I have questions?

If you have any questions, you can call your Vascular Access Co-ordinators at 416 340 4800, extension 3518 or 6158

Visit [www.uhnpatienteducation.ca](http://www.uhnpatienteducation.ca) for more health information.

Contact us to provide feedback or request this brochure in a different format, such as large print or electronic formats: pfep@uhn.ca