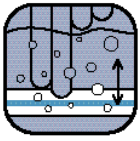


7 Vital Intervention Principles

FOR SURGERY

Because the Vectra[®] Vascular Access Graft is made of Thoralon[®] and not PTFE, the graft requires a different handling and surgical technique. The **7 Vital Intervention Principles for SURGERY** help contribute to a more successful implantation and optimal outcomes.



1 Hydrate the Vectra Graft in Sterile Saline.

Prior to implantation, always soak the Vectra Graft in a basin of sterile saline. Gently compress the graft to remove all air bubbles from the voids in the microstructure. Do NOT preclot the graft!



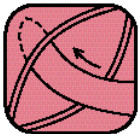
2 Handle the Vectra Graft with Care.

During implantation, always avoid excessive stretching and pulling of the Vectra Graft. Stretching can damage the graft and compromise the integrity of its microstructure. Do NOT bend, fold, kink, or crease the Vectra Graft.



3 Create Ample Pockets and Windows for the Vectra Graft.

With blunt dissection, always create ample positioning pockets and windows in the fascia to allow for a slight expansion of the Vectra Graft following normal arterialization. These spaces help avoid constriction of the graft and protect anastomoses.



4 Use the Vectra Tunneler to Create the Tunnels.

Always create tunnels at appropriate depths that will allow easy visualization and palpation of the Vectra Graft. At anastomotic sites, direct the Vectra Tunneler Assembly across host vessels and slightly deeper to accommodate a smooth lie of the Vectra Graft.



5 Position the Vectra Graft Using the Vectra Tunneler Sheath.

Using its orientation line / apex marker as a guide, always position the Vectra Graft by sliding it through the Tunneler Sheath. Do NOT pull or twist the graft! Use liberal saline to lubricate the sheath and graft during implantation. Always confirm graft positioning before removing the sheath. Do NOT reposition the graft after sheath removal.



6 Trim the Vectra Graft to the Position of the Host Vessel.

Use the position of the graft and its host vessel as a reference for planning the anastomoses. Prior to creating the venotomy and arteriotomy, trim the Vectra Graft at an acute angle (30 to 45 degrees) to create a smooth, gentle "Y" transition to the vessel and at an appropriate length so that the graft remains taut and does not kink during normal arterialization.

Do NOT apply excessive tension on the vessel or the anastomosis. Excessive tension can cause vessel tenting and suture hole damage.



7 Suture the Vectra Graft with Care.

When suturing, draw the graft end taut to the host vessel. Create a tight closure using a tapered, non-cutting needle with a non-absorbable monofilament 5.0 or 6.0 suture. Follow the curve of the needle and pull it at a 90-degree angle to minimize suture hole elongation.

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7 Vital Intervention Principles FOR DIALYSIS

The Vectra[®] Vascular Access Graft can be accessed within 24 hours after implant. Because it is made of Thoralon[®] and not PTFE, the graft requires a different handling and dialysis technique. The **7 Vital Intervention Principles for DIALYSIS** contribute to optimal cannulation, needle removal, and patient care associated with the graft.



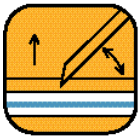
1 Assess the Vectra Implant Patient with Care.

Always assess patient's condition for infection, thrombosis, or other potential problems. Confirm graft configuration, positioning, and direction of flow; refer to the surgeon's report, patient's chart, and patient's *VIP Guidebook of Care* for special instructions.



2 Check the Vectra Graft for Pulse / Thrill / Bruit.

Prior to, during, and after dialysis treatment, always palpate the Vectra Graft for pulse and thrill (the vibration or tremble of blood flow) and evaluate bruit (the sound of blood flow) with a stethoscope. Do NOT cannulate if pulse, thrill, or bruit is absent!



3 Cannulate the Vectra Graft with Care.

Always cannulate with needle bevel UP and at a 45-degree angle. First insert the venous needle antegrade (with the direction of blood flow) and then the arterial needle, preferably, retrograde (against the direction of blood flow). Rotate sites and maintain strict adherence to aseptic techniques.



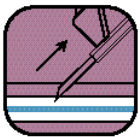
4 Confirm Needle Entry with Blood Flashback.

During insertion, always confirm entry into the graft with blood flashback in the needle hub / tubing. Once entry is confirmed, level off the needle to ensure optimal placement. Do NOT exert excessive pressure on the needle and NEVER confirm entry with feeling or "pop."



5 Maintain Normal Blood Flow Rates.

Beginning with the first dialysis and continuing with subsequent treatments, always use proper gauge needles required to establish and maintain adequate blood flow rates, as prescribed by the nephrologist.



6 Remove Needles from the Vectra Graft with Care.

Following dialysis treatment, always remove needles slowly and at the same angle of their original entry (45 degrees) and final placement. Do NOT apply pressure to the access site, or the needles, at any time during removal.



7 Apply Gentle Digital Pressure for Rapid Hemostasis.

Using a sterile gauze pad or cotton ball, always apply gentle, non-occlusive digital pressure to compress the cannulation site and achieve rapid hemostasis. Maintain digital pressure for about 1 to 5 minutes or until bleeding stops.

Do NOT use excessive compression! Do NOT use clamps! Do NOT apply elastic wrap or compression-type bandages!

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