

# Required supplies for InterGraft procedures

- **1.** Two micro puncture kits (needle, access wire, 4F sheath)
- 2. One 11F introducer sheath (maximum length 11 cm)
- 3. One 7F introducer sheath (maximum length 11 cm)
- **4.** One 0.018" diameter soft tip guidewire (length 145 cm)
- **5.** One 0.014" diameter soft tip guidewire (length 145-185 cm)
- 6. Three stopcocks
- 7. Graft tunneling set
- 8. Atraumatic vascular graft clamp
- 9. One each sterile 3 cc and 10 cc syringe
- 10. Sterile saline solution
- 11. Sterile 50:50 heparinized saline for flush
- 12. Contrast agent
- **13.** 6 mm sterile straight graft (non-tapered), length appropriate for planned AV access



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# Venous InterGraft delivery system preparation

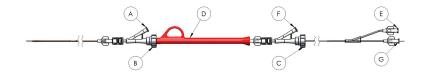
- Using sterile technique, open VIG package and place InterGraft delivery system in sterile field. Remove the white graft grippers.
- **2.** Attach a stopcock to each of the T-B ports **D,E**. Loosen the T-B valves **A,C**.
- 3. Using a 10 cc syringe, flush the delivery system with sterile saline solution. Close valve A and flush through port E. Close stopcock on port E and remove 10 cc syringe. Then close valve C and flush through port D. Close stopcock on port D and remove 10 cc syringe.
- **4.** To load the 0.018" guide wire into the VIG delivery system, loosen both T-B valves **A**,**C**. Backload wire into delivery system and gently close T-B valve **C**.

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# Arterial InterGraft delivery system preparation

- Using sterile technique, open AIG package and place InterGraft delivery system in sterile field. Remove the white graft grippers.
- 2. Attach stopcocks to each of the two T-B ports A,F and open the valves B,C. Close valve C and flush sterile saline through port F. Close stopcock on port F and remove 10 cc syringe. Then close valve B and flush sterile saline through port A. Close stopcock on port A and remove 10 cc syringe. Flush guidewire lumen through port G using sterile saline. Gently tighten T-B valves B,C.
- 3. Attach stopcock to balloon luer E. Evacuate balloon using a 10 cc syringe, close stopcock and remove syringe. Draw up 50:50 contrast/saline solution in a 3 cc syringe, attach to stopcock, open stopcock and inject the solution. Visually confirm positioning balloon inflation. Withdraw contrast from balloon, close stopcock, and leave 3 cc syringe connected to luer.
- **4.** Loosen T-B valves **B**,**C**, backload 0.014" wire into AIG delivery system and gently tighten T-B valve **B**.

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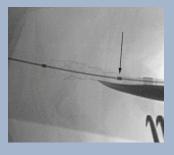
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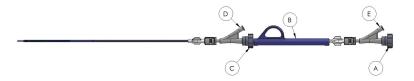
## Venous InterGraft implant procedure

- **1.** Prep VIG delivery system according to VIG preimplant preparation instructions.
- 2. Pre-tunnel graft with ends adjacent to target vein and artery anastomotic sites using specified tunneling procedure.
- **3.** Identify target venotomy site and mark with surgical clamp.
- **4.** Access the vein using micropuncture kit, insert wire, remove needle and insert 4F sheath.
- **5.** Exchange 4F sheath for 11F sheath replace micropuncture wire with 0.018" wire.
- 6. Load VIG delivery system over the wire.
- Under fluoroscopic guidance, advance VIG over the wire and into vein, approximately 1 cm past venotomy.
- 8. Remove blue deployment lock labeled B (see illustration next page) and position VIG marker band (at arrow right) ~ 1cm peripheral to clamp tip that marks the venotomy site.



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- **9.** Loosen T-B valve **C** and under fluoroscopic guidance slowly advance the hypotube until it just engages the VIG (i.e., "closes the gap").
- **10.** Reconfirm marker band position and remove 11F sheath from vein.
- 11. Deploy VIG under fluoroscopy using standard "pin and pull" technique, ensuring the marker bands and venotomy clamp remain in position throughout deployment.
- **12.** Remove VIG delivery system and wire, gently grasp and compress protruding end of VIG to control bleeding and insert VIG into pretunneled graft end.
- **13.** Verify blood flow through graft, clamp graft to stop venous back-bleeding, prepare 10 cc syringe with heparinized flush, remove graft clamp and flush graft and reattach clamp.

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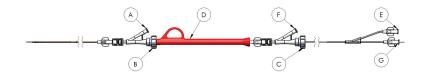
## Arterial InterGraft implant procedure

- **1.** Prep AIG delivery system according to AIG preimplant preparation instructions.
- **2.** Identify arteriotomy site and mark with surgical clamp.
- Attach vessel loops or vascular clamps for proximal and distal control of artery. Do not tighten at this stage.
- **4.** Gain access to artery using a micropuncture kit, insert wire, remove needle and insert 4F sheath.
- **5.** Exchange 4F sheath for 7F sheath replace micropuncture wire with 0.014" wire.
- **6.** Load AIG delivery system over the 0.014" wire.
- Under fluoroscopic guidance advance AIG over the wire and into artery ~ 1 - 2 cm past arteriotomy (at arrow right).



8. Remove red deployment lock labeled D (see illustration next page) and position AIG marker band ~ 2 cm central to clamp tip that marks the arteriotomy site (at arrow above).





- 9. Loosen T-B valve labeled B in diagram.
- **10.** Reconfirm marker band position, remove 7F sheath and deploy AIG under fluoroscopy using standard "pin and pull" technique until **only the tines** emerge from delivery sheath.
- 11. Inflate positioning balloon, pull inflated balloon back to engage tines, tighten T-B valve B and slowly pull entire AIG system up vertically from the artery until resistance is felt, indicating apposition of the tines at the artery wall.
- **12.** Complete deployment of the AIG using "pin and pull" technique, deflate balloon and remove entire system and guidewire.
- 13. Grasp protruding end of AIG to control bleeding, stabilize base of AIG by grasping, and insert AIG into graft. Remove clamp and verify flow through circuit.
- **14.** Release vessel loops or vascular clamps, close incisions.

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