Open Abdominal Aortic Aneurysm Repair

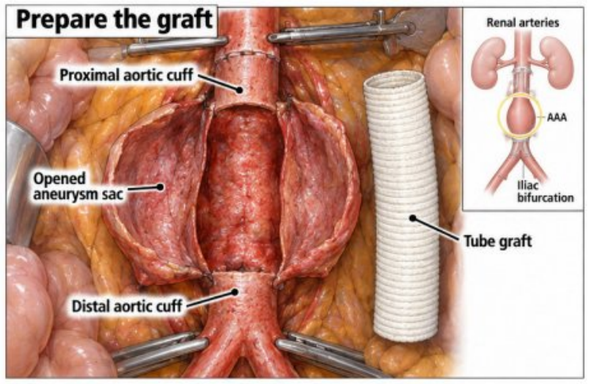
Tube Graft Reconstruction | 120-minute faculty-led lab | Two graft-to-aorta anastomoses on one connected model

PREPARE / 15 MIN One aorta + one short synthetic tube graft. Preserve both original cannulas. Faculty prepare a short central gap, leaving only enough native cuff for clamping and suturing. Match graft caliber to the tissue. Keep the pump off while either end is open.

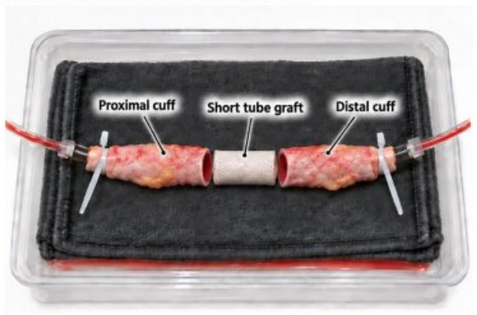
READ THE IMAGES Open repair above; compact bench model below. Gold highlights identify the joins.

01 Prepare the graft

CUFFS AND ALIGNMENT / 20 MIN



CONNECTED AORTA / SHORT SYNTHETIC GRAFT

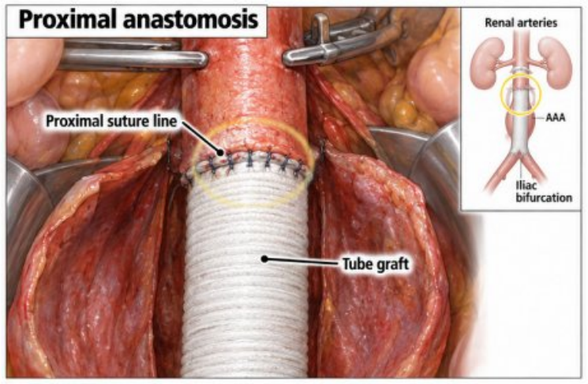


Two native cuffs / two graft-to-aorta joins

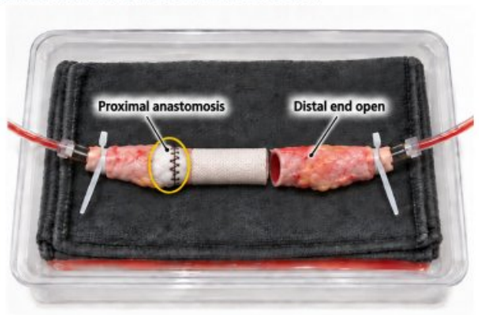
Clinical: Identify the proximal and distal cuffs within the opened aneurysm sac.
Rehearse: Align a short tube graft between the connected aortic ends.
Check: Match caliber; allow access to both suture lines without unnecessary tissue length.

02 Proximal join

FIRST ANASTOMOSIS / 25 MIN



CONNECTED AORTA / SHORT SYNTHETIC GRAFT

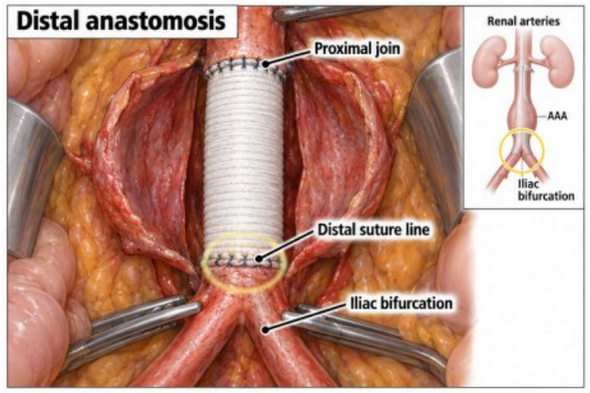


Two native cuffs / two graft-to-aorta joins

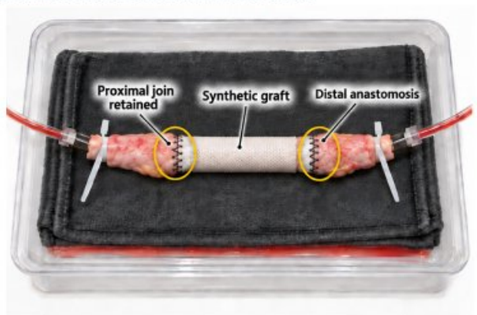
Clinical: Join the graft to the proximal aortic cuff.
Rehearse: Complete the left graft-to-aorta anastomosis; the right end remains open.
Check: Inspect posterior-wall apposition and stitch spacing. Avoid catching the opposite wall. Keep flow off.

03 Distal join

SECOND ANASTOMOSIS / 25 MIN



CONNECTED AORTA / SHORT SYNTHETIC GRAFT

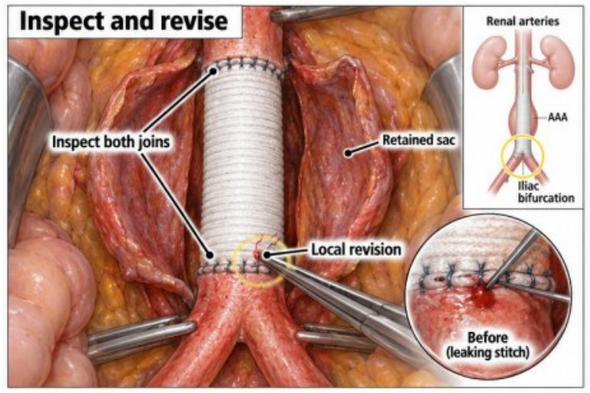


Two native cuffs / two graft-to-aorta joins

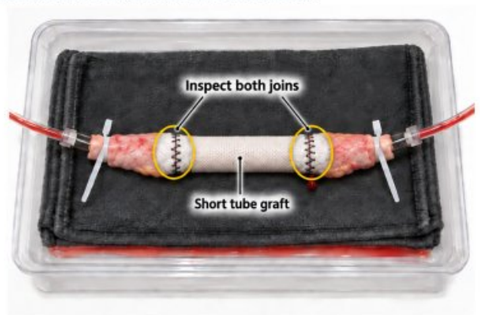
Clinical: Join the graft to the distal aortic cuff above the bifurcation.
Rehearse: Complete the right join while retaining the proximal repair.
Check: Inspect both interfaces for gaps, narrowing, tension and twist. Avoid graft kinking.

04 Test and revise

BOTH SUTURE LINES / 15 MIN



CONNECTED AORTA / SHORT SYNTHETIC GRAFT



Two native cuffs / two graft-to-aorta joins

Clinical: Assess hemostasis and distal perfusion before closure.
Rehearse: Test at a faculty-validated setting. Locate leakage, stop flow, revise and retest.
Check: Review both joins and outlet flow; a dry seam alone does not establish an unobstructed lumen.



05 FLOW. FIND. REPAIR.

FINAL CHALLENGE / 20 MIN

Inspect both anastomoses, identify a focal leak, stop flow, revise and retest. Record tissue handling, posterior-wall apposition, graft alignment, revisions and completion time. **Target:** two intact joins with unobstructed outlet flow at the agreed bench setting. Preserve the original cannula connections throughout.

YOUR REAL BLEED™ SETUP

Photo at left: your original station. Both aortic ends remain attached to the original tubing. A compact synthetic tube replaces a short central segment. The clear tray, dark towel and two external connections stay in place. Use the shortest workable cuffs and graft; no carotid is needed.

WHAT THE MODEL REPRESENTS

The model rehearses two graft-to-aorta joins. It does not reproduce aneurysm wall behavior, lumbar backbleeding, clamp physiology or renal ischemia. Clinical repair retains the opened aneurysm sac for graft coverage. Bench interposition is a simplified skills exercise, not the full operation.

Educational concept for faculty review. AI-generated illustrations are not operative photographs or calibrated drawings. Faculty validate tissue, graft compatibility and test settings; follow the Real Bleed IFU. This workshop addresses open tube-graft anastomoses, not full aneurysm management.

Source: Open AAA Real Bleed™
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REAL BLEED™ SYSTEM | PATENT PENDING

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