VASCULAR ACCESS PORT (VAP) ASEPTIC ACCESS

STEP-BY-STEP GUIDE FOR LABORATORY ANIMAL RESEARCHERS

ASEPTIC TECHNIQUE PROTECTS YOUR ANIMALS AND YOUR DATA

Always follow your institution's IACUC-approved SOP, veterinary direction, and AVABIO's IFU.

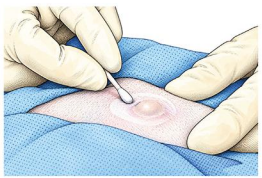
1 PREPARE



- Perform hand hygiene.
- Gather all sterile supplies:
  - Huber (non-coring) needle set*
  - Extension set (recommended)
  - Flush/lock solution per SOP
  - Syringes, alcohol caps, gauze, dressing
- Work in a clean, uncluttered area.
- Verify all supplies and solutions.

This guide depicts use of a RIGHT-ANGLE needle for visual clarity. Either straight or right-angle NON-CORING Huber needle may be used per your SOP/ device IFU.

2 LOCATE + INSPECT



- Palpate to locate the implanted port and septum under the skin.
- Inspect skin over and around the port for redness, swelling, heat, pain, discharge, or damage.
- STOP and consult veterinary staff if any abnormality is detected.

The vascular access port is completely implanted under the skin with the septum palpable.



3 CLIP HAIR (AS NEEDED) + ASEPTIC SKIN PREP

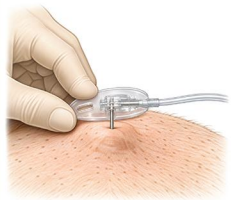


- Clip EXCESSIVE hair over and around the port. Preferably do this in advance of scheduled access to reduce skin trauma.
- Disinfect clippers between animals.

SKIN DISINFECTION (choose one):
OPTION A (PREFERRED):
3 alternating scrubs with chlorhexidine and betadine, each followed by sterile saline or sterile water.
— OR —
OPTION B:
2 applications of an appropriate commercially available skin preparation per product instructions.

- Allow the site to DRY COMPLETELY. Do not touch prepped site.
- Replace gloves after skin prep and before accessing the port.

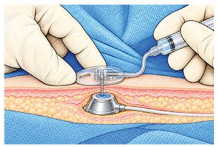
4 ACCESS PORT



- Stabilize the implanted port between thumb and index finger.
- Use a STERILE NON-CORING HUBER needle.
- Insert needle perpendicular (90°) to the skin and septum until the needle is fully seated. (Do not advance beyond the septum.)

Never force the needle. If resistance is met, STOP and troubleshoot per SOP.

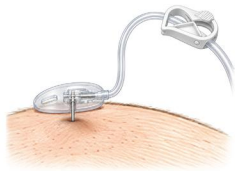
5 VERIFY ACCESS



- Gently aspirate to confirm blood return (if per protocol).
- Flush with a small amount of approved solution.
- Port should flush easily.

If no blood return or resistance is met, STOP and troubleshoot per your SOP.

6 SAMPLE / INFUSE



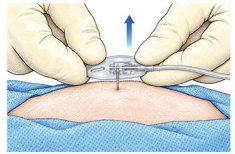
- Collect samples or administer fluids/medications as approved.
- Maintain aseptic technique and keep all connections sterile.
- Secure line to prevent kinking, tension, or pulling.

7 FLUSH + LOCK



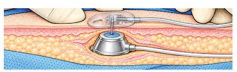
- Flush with the protocol-specified solution.
- Lock the port with the protocol-specified solution, concentration, and volume based on port dead space.†
- Follow dead-space and volume recommendations in your SOP/device IFU.
- Do not leave blood in the port.

8 REMOVE + DOCUMENT



- Remove needle at a 90° angle while stabilizing the port.
- Apply gentle pressure with sterile gauze if needed.
- Inspect the site.
- Dispose of sharps properly.
- Document: date, time, procedure, solution/volume, and any observations.

ABOUT THE PORT



The vascular access port is completely implanted under the skin with the septum palpable.

KEY POINTS

CLIP EXCESS HAIR	ASEPSIS IS CRITICAL	REPLACE GLOVES	USE NON-CORING HUBER NEEDLE	FLUSH + LOCK
as needed. Preferably in advance of scheduled access.	Follow proper skin disinfection and no-touch technique.	after skin prep and before accessing the port.	Straight or right-angle per your SOP/IFU.	per your SOP. Do not leave blood in the port.

STOP AND CONSULT VETERINARY STAFF IF:

- Redness, swelling, heat, pain, or discharge at site
- Port is difficult to access or does not flush
- No blood return (if expected) or resistance
- Animal shows signs of illness or distress



* HUBER (NON-CORING) NEEDLE SET
Extension set recommended.
Use per your SOP/device IFU.

Species to which this guidance applies:



Rabbit • Canine • Feline • Nonhuman Primate • Porcine

† Flush/lock volume recommendations should be based on port dead space as outlined in the device IFU and your institution's SOP.

Source: Bernal J, Adrian S, Burkart H, Laffins M. Guideline for Vascular Access Port Use and Maintenance in Large Animals for Biomedical Research. Surgeries. 2022;3:219–228. doi:10.3390/surgeries3030024