

# Vascular Access

Applies to:
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Paramedic
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**Clinical Indications:**

1. Any patient where intravenous access is indicated (e.g., significant trauma, emergent, or potentially emergent medical condition) for fluid or medication therapy.

**Procedure:**

1. Saline locks shall be attached to the IV catheter.
2. Paramedics can use intraosseous access where threat to life exists as provided for in the Intraosseous procedure.
3. Use the largest catheter necessary based upon the patient's condition and size of veins.
4. Select the most appropriate site:
  - a. Hand/Arm – General fluid and medications. *Not* preferred site for patients in shock.
  - b. Antecubital – Preferred site for patients in shock, cardiac arrest, who will receive Adenosine, or when a peripheral site is not available.
  - c. Intraosseous (IO) – Preferred site for critical patients where IV access was unsuccessful or are in cardiac arrest.
  - d. External Jugular (EJ) – Unstable patients who need emergent IV medications or fluids AND no peripheral site is available AND IO access is not appropriate (e.g., very alert patient).
5. Place a tourniquet around the patient's extremity to restrict venous flow only.
6. Prep the skin with alcohol and allow to air dry.
7. Insert the needle with the bevel up into the skin in a steady, deliberate motion until a blood flashback is visualized in the catheter.
8. Advance the catheter into the vein. **Never** reinsert the needle through the catheter. Dispose of the needle into a sharps container without recapping.
9. Remove the tourniquet and connect the saline lock. Flush with 10ml of saline to ensure patency.
10. If administering IV fluid or medications:
  - a. Inspect the IV solution/medication for expiration date, cloudiness, discoloration, leaks, or the presence of particles.
  - b. Connect IV tubing to the solution in a sterile manner. Fill the drip chamber half full and flush the tubing, thus bleeding all air bubbles from the line.
  - c. Open the IV to assure free flow of the fluid and then adjust the flow rate as clinically indicated.

