

## **IV Access Guidelines, Department of Radiology / CT Scan**

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### **Extension: 46068 North and 30895 South**

All IV access lines must flush well and produce blood return.  
This is **required** for all IV access prior to CT scan.

Patients having a CT exam with IV contrast will be required to have peripheral IV access.  
The exception would be those patients with a CT injectable PICC, CT injectable Port, or a central line that is approved and labeled for CT pressure injections. See section below in regard to power injectable lines.

### **Exams / Studies Requiring Large Peripheral IV Access**

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The following studies require **no less than a 20 gauge** peripheral IV access, preferably in the antecubital or radial area:

- Stroke Alert
- CTA Head Perfusion
- CTA Neck
- Pulmonary Embolus
- Pulmonary Vein
- Cardiac CTA\*
- CT IVP / Renal Mass CT IVP
- Three Phase Liver
- Pancreatic Mass
- Pre Op Stent (AAA)
- Post Op Stent
- Trauma Studies
- Pediatric studies will vary by patient, see note below
- Any **Arterial** CT Angiogram study.  
See specific exam protocol names on page 3.

\*Line placement for this study is very specific and must be discussed with the cardiac imaging team.  
Ext. 42721, 45691

### **Exams / Studies Not Requiring Large Peripheral IV Access**

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Routine studies can be done with a 22 gauge peripheral IV or larger. These include:

- Head
- Neck
- Chest
- Abdomen
- Pelvis
- Extremity
- Pediatric studies will vary by patient, see note below

**Note:** Pediatric patients will be managed on an individual basis if 20 gauge access is not possible. These cases will be managed with direct communication between the nursing staff and the CT technologist(s).

## Central Line Information

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Only **power injectable** central lines are an alternative option to IV access.

A power injectable line will **always** be labeled with an approved rate for power injection.

Make sure with Infusaports that an identification card or placement report states CT injectable.

Some lines that are allowed:

- Bard Power Port with proper power injectable access line
- PFM CT Ports with proper power injectable access line
- Bard Power PICC
- Cook Spectrum central lines and PICC lines
- ARROW Central Line
- Navilyst / Angiodynamics
- Bard Trialysis 3 lumen non-tunneled dialysis catheter
- Bard Power Hickman
- Bard Power Line
- MedComp Pro Line

We **cannot** use central lines that are not rated for pressure injections of 300 PSI or greater.

The following central/access lines have a 25 PSI limitation and **cannot be used** by CT for power injection due to the viability of the materials used to manufacture these lines. These manufacturers **do not** support the use of power injectors with their product:

- Hickman
- Groshong
- Broviac
- Introducers
- Vascath

## Other IV Access Information

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**EJ/IJ access:** The use of an EJ (external jugular) or IJ (internal jugular) lines is limited. If the patient needs an arterial study, a peripheral IV line should be placed in order to prevent an increased risk of extravasation into the patient's neck, compromising the airway, vascular structures, etc. If an EJ/IJ lines are used, it must be at a rate of no more than 2 mL/sec at a reduced PSI of 150.

**Pediatric scalp IV access:** May be used for routine studies only. **NO ARTERIAL** studies will be done using a scalp IV. All scalp contrast injections must be done by hand and will **never** be pressure injected.

**Lower Extremity IV access:** IV placement in a lower extremity may be used for routine studies and may be injected 2 mL/sec.

## Protocols Requiring Large Peripheral IV Access

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CT protocols requiring 20 gauge peripheral IV access:

- CT Acute GI Bleeding
- CT Body Trauma
- CTA Chest Aorta
- CTA Chest, Abdomen, or Pelvis (any combination)
- CTA Acute Chest Pain
- CTA Endograph Planning
- CTA Post Stent Chest, Abdomen, or Pelvis (any combination)
- CTV Chest, Abdomen, or Pelvis (any combination)
- CT Deep Inferior Epigastric Artery
- CT Enterography
- CT Liver Three or Four Phase
- CT Pancreas Detail
- CTA Cardiac Coronary Arteries
- CTA Cardiac ED Chest Pain
- CTA Cardiac Post Graft
- CTA Cardiac Prospective Gating
- CTA Cardiac Retrospective Gating
- CTA Chest Pulmonary Artery
- CTA Chest Pulmonary Vein
- CTA Head, Neck, Perfusion, (any combination)
- CTA Head Stealth
- CT Three Phase Parathyroid