CT Scans and Contrast: When do I order a test with some type of contrast?

Many Computed Tomography (CT or CAT scans) require the patient to have a contrast agent before or at some point during the scan. There are two kinds: IV contrast (Iodine), and Oral Contrast (aka Readi-Cat). When writing an order for a CT scan, please use the following guidelines. If you have any questions, please contact our helpful schedulers at (907) 212-3146; our technologists at (907) 212-2862; or alternatively one of our radiologists at (907) 212-3148.

IV CONTRAST GUIDELINES

Here are some general guidelines that indicate whether a CT requires IV contrast. IV contrast is required when the radiologist needs to visualize vascular areas.

**IV contrast required for the following exams:**
- All angiography
- Chest (malignant lesions, etc.)
- All abdominal work that emphasizes liver, pancreas, kidney and/or bladder

**No IV contrast is required for the following CT exams:**
- Renal Stone Study
- Spine workups including C, T and L-spine
- Extremity work (i.e. ankles, knees, wrists, etc.)
- Patients who are in renal failure* (and are not on dialysis)
- Chest High Resolution (i.e. interstitial lung disease, pulmonary fibrosis, bronchiectasis--typically ordered by pulmonologist)
- General brain screening
- General sinus, orbit or maxillofacial imaging
- Patients where renal function is in question need a referral for BUN/creatinine, within last 30 days, please!

What do I do when a patient has had a prior contrast reaction to iodine?

Patients with a history of prior serious allergic-type reactions to intravenous iodine contrast administration should not have subsequent iodinated contrast injection if another imaging procedure is available that will yield the desired clinical information. If a procedure involving intravenous iodinated contrast must be performed, nonionic contrast should be used and premedication should be employed.

There are two accepted regimens for prophylactic premedication for iodinated contrast injection. The published literature suggests equivalent efficacy for these protocols.

- 32 milligrams of methylprednisolone given orally 12 hours and 2 hours prior to the administration of intravenous iodinated contrast material
- 50 milligrams of prednisone given orally 13, 7 and 1 hour prior to the administration of intravenous iodinated contrast material. 50 milligrams of diphenhydramine given orally 1 hour prior to the exam

Updated 3/2008 for Dr. Tonya Caylor at the Providence Family Medicine Center