The following are my suggestions for using MRI contrast:

**Brain**

Contrast is very helpful for all brain MRI scans, except for evaluating simple headaches or sinuses. There have been numerous cases where small lesions, especially meningiomas, venous angiomas, as well as small infarcts and other pathology, were missed without contrast enhancement.

**Joints (Shoulders, Elbows, Wrists, Hips, Knees, Ankles)**

Intravenous contrast for an MRI of a joint has not proved to be very helpful, unless there is concern regarding a potential infection, tumor or synovial pathology. However, unlike intravenous contrast, intra-articular injection of contrast, i.e., MR Arthrography (MRA), can be very helpful. For example:

- In the shoulder, for detecting full or partial thickness tears, labral injuries (also for the hips), articular cartilage damage, loose bodies and adhesive capsulitis;
- In the knee, for detecting recurrent meniscal tears, loose bodies and articular cartilage damage;
- In the wrist, for detecting subtle ligamentous or triangular fibrocartilage tears.

MRAarthrography of the ankle and elbow are not very helpful, except for visualizing cartilaginous injury or loose bodies.

**Soft Tissue Masses**

Soft tissue masses are best differentiated by the use of contrast enhancement, especially if an infection or a tumor is suspected. Additionally, our three 1.5 Tesla High Field MRI scanners can perform “fat saturation” imaging, whereby the fat signal intensity is removed. Fat and contrast can appear similar on the MRI images; eliminating the fat signal allows significantly improved visualization of subtle areas of contrast enhancement to better evaluate pathology.

**Spine**

When spine surgery has been performed within the past 3-5 years, contrast enhancement is especially helpful in evaluating the presence of disc pathology versus scar tissue. However, if the surgery was performed over 8-10 years ago, contrast is not often helpful. Additionally, contrast is very useful when evaluating for a metastatic disease, primary tumor or infection.

There is a newly described disorder called Nephrogenic Systemic Fibrosis (NSF) that has been associated with MRI contrast media. This is a very rare but serious condition. To date, it has only occurred in patients with severe renal disease. Because of this, screening of all patients for any type of renal failure prior to using gadolinium contrast material is essential. Even though the gadolinium contrast agent used by High Field & Open MRI has only been reported to be associated with a single case of NSF, we will not perform a contrast study for any patient with renal failure, even if they are currently undergoing dialysis. The FDA has reported that, “there have been no reports of problems among patients with normal kidney function or among those with mild to moderate kidney insufficiency.” We have found gadolinium to be very safe with our patients. Nevertheless, because of FDA warnings, we have redoubled our efforts in screening patients. Your understanding and assistance in this matter is greatly appreciated.

Dr. DuBose and I are always available for your calls and questions. Discussing complicated cases with us prior to a patient’s scan allows us to tailor our protocols and use of gadolinium to best respond to your diagnostic questions and to provide the safest experience for your patient.
In November, we introduced our new and improved online scheduling and viewer software program. Please ask your marketer for details.

We are committed to providing you and your patient the highest quality care and service.