

## Foot Osteomyelitis

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The purpose of this seemingly complicated approach to osteomyelitis is to streamline the protocol so we can perform the exams on a consistent basis to obtain adequate diagnostic information with a reasonable amount of scanning time.

For all osteomyelitis cases, post-contrast sequences are needed for evaluation of bone viability.

***If intravenous contrast cannot be administered due to severe renal insufficiency or allergy, please refer to routine protocol to scan the patient.***

***Ulcers should be marked before scanning is initiated.***

***Please acquire sequences in the order listed in the protocol.***

If there is difficulty completing the last post-contrast sequence (e.g. pt. motion, pt. pain, scanner shut down etc.), there is no need to repeat the specific sequence.

### **General parameters (1.5 T magnets):**

For all T1 sequences, please keep TE below 20 (between 10 and 15 if possible); TR 500-600.

For all T2 FS sequences, use equivalent of FSE/TSE. TE of mid to upper 50's is the most ideal for Siemens, 60-65 for GE, and ~ 60 for Toshiba.

It is important to have TE long enough for T2 weighting but not so long that it is signal starved.

For STIR, TI = ~ 135

- short axis – cross section of the metatarsals
- cor – cor to the foot
- sag – sag to the foot