RADIOLOGY ASSOCIATES OF NORTH TEXAS, P.A.

MR Prostate
Last Updated: 12/2025

Name	Plane	Thick	Space	Scan Range	Comments
SCOUT					
2D T2W TSE	Sagittal	3 mm	0.3 mm	Inside femoral heads	
2D T2W TSE	Axial Oblique	3 mm	0 mm	Bladder dome through penile base	
2D DWI FS	Axial Oblique	3 mm	0 mm	Bladder dome through penile base	1.5T: acquire b0, 1000, 1500, send 1000, 15000, ADC 3T: acquire b50, 1000, 1500, send 1500, calc 1800, ADC
2D T2W TSE	Coronal Oblique	3 mm	0 mm	Pubic symphysis through rectum	
DCE	Axial Oblique	3 mm	0 mm	Seminal vesicles through prostate	See Below
3D T1W Dixon	LFOV Axial	3 mm	0 mm	Aortic bifurcation through perineum	Water only
CONTRACT:					
TYPE	Extracellular gadolinium-based contrast material				
DOSE	0.1mmol/kg standard GBCA or equivalent high relativity GBCA				
DELAY					

Notes:
MRI of the prostate is a specific protocol designed to evaluate for the presence of prostate cancer, staging, or assessment of recurrent disease. The exam should be performed only on a 3T magnet using a phased array surface coil according to the criteria listed below. DO NOT PERFORM A ROUTINE PELVIC MRI.

CRITERIA:

- MRI prostate will be ordered only at the request of the ordering urologist. The urologist name and office number must be available for the radiologist to contact before the exam. Any exceptions will need to be approved by the reading radiologist.
- The protocol should be tested on a volunteer prior to the first patient. Images must be reviewed and approved by a radiologist experienced in reading prostate MRI.
- History pertinent to the exam should include: PSA results including any prior results which indicate a rising or falling PSA, all prior prostate surgeries or biopsies, and prior imaging studies.
- An interval of 6 to 8 weeks between prostate biopsy and MR imaging in recommended to allow for the resorption of all blood products.

*Parallel Imaging: Siemen-iPAT, GE-ASSET, Phillips-SENSE, Toshiba-SPEEDER
1. Begin with straight sagittal T2, covering femoral head to femoral head.
2. Using midline sagittal T2 images, set up axial oblique T2 scan plane 90 degrees to long axis of the prostate gland as shown on the image.
3. For the other axial oblique sequence (T1, DWI, dynamic), simply copy the scan parameters from this initial axial oblique T2.
4. For the coronal oblique T2, parallel the long axis of the prostate (or perpendicular the oblique axial plane above).
5. For the multiplanar post-contrast VIBE, begin contrast injection AT THE END OF THE SECOND PHASE (DO NOT INJECT AT THE START).
6. Generate subtracted images.

Reference ACR PI-RADS:
https://edge.sitecorecloud.io/americancoldf5f-acrorgf92a-productioncb02-3650/media/ACR/Files/RADS/PI-RADS/PIRADS-2019.pdf

Antiperistaltic recommended:
2x 125 mcg hyoscyamine (Levsin) sublingual 30 min prior to exam
Contraindications: allergy/sensitivity, history of glaucoma, taking Pramlintide (SymlinPen, Symlin)
Parameters for DCE:

3D T1W GRE is generally available using modern systems and is preferred.
TR/TE: <100msec/ <5msec
In plane dimension: ≤2mm X ≤2mm
Temporal resolution: ≤15sec
Total observation rate: >2min
Injection rate: 2-3cc/sec starting with continuous image data acquisition

Figure 1: SAGITTAL HI-RES T2 FOV AND ORIENTATION OF OBLIQUE AXIAL AND OBLIQUE CORONAL PLANES

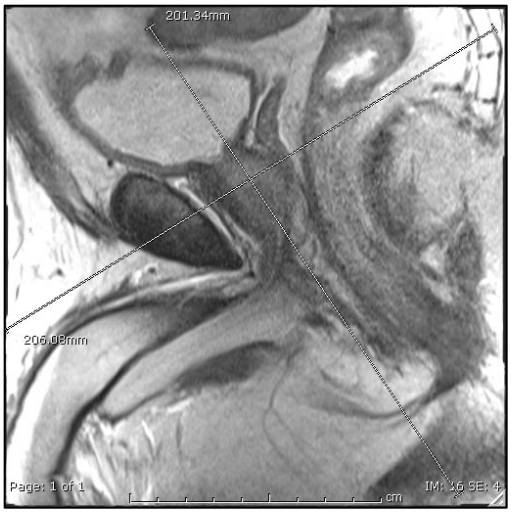

Figure 2: HI-RES T1 OBL AXIAL

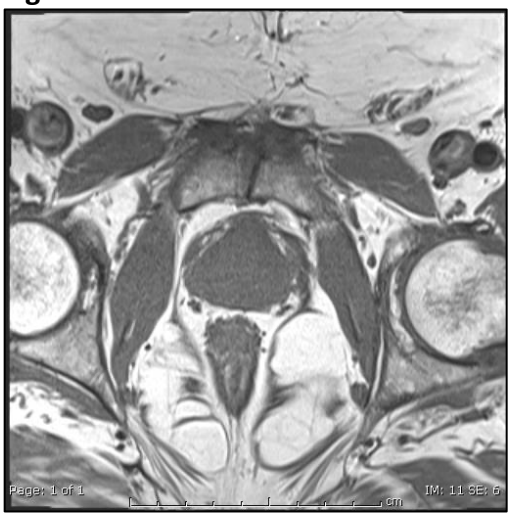

Figure 3: HI-RES T2 OBL AXIAL

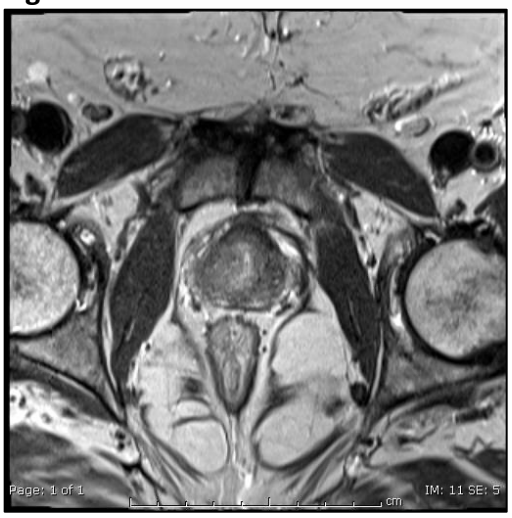

Figure 4: HI-RES OBL T2 CORONAL