

MRI Defecography (Pelvic Floor)

Updated 06/16/25

Reviewed 06/16/25

Indications: fecal/urinary incontinence, constipation, urinary stasis, rectocele, cystocele, vaginal/uterine prolapse.

IV contrast is not given for this protocol.

Full Pelvis FOV: Iliac crests to few slices below introitus/anus (top/bottom coverage), greater trochanter to greater trochanter (right/left coverage), anterior pelvic wall skin to posterior buttock skin (front/back coverage).

Parameters for cine sequences (20 images per run, 1 image per sec).

The sagittal slice for the trueFISP is midline small FOV showing the lower rectum and anal canal (see below image).

Repeat this sequence until the patient exhibits an adequate defecation attempt.

Many patients require multiple attempts before they understand and are comfortable enough to defecate on scanner.

Some patients are unable to defecate on the table no matter how many attempts they make.

The coronal slice for the trueFISP is small FOV through the anal canal (see below image).

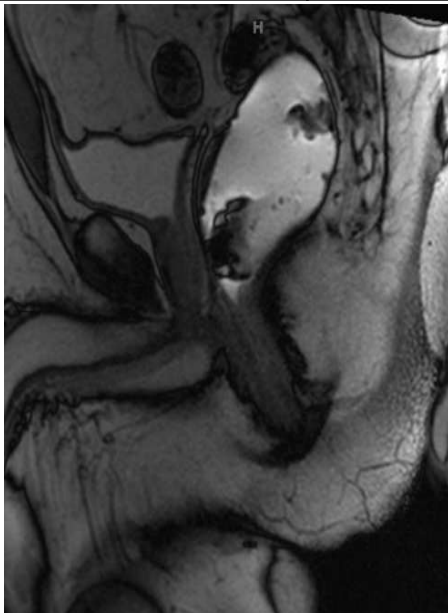
The axial slice for the trueFISP is small FOV through the upper anal canal (see below image).

Go to MRIMaster.com for a guide of proper positioning.

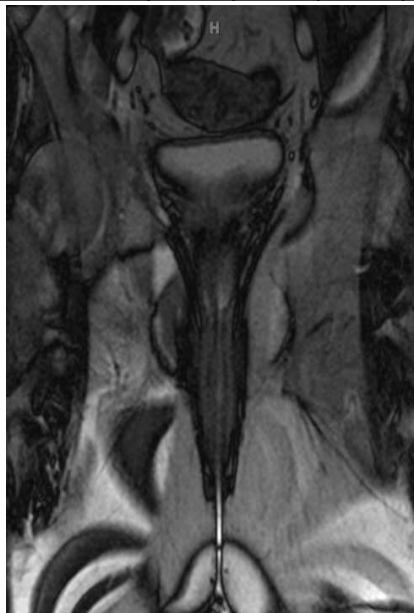
Pulse Sequence	PACS Name	plane	fat sat	slice (mm)	gap (mm)	first slice	Field of View
T2 HASTE/SSFSE	T2 COR	cor	no	7	1.4	front	full pelvis
T2 TSE	T2 SAG	sag	no	5	1	right	
T2 TSE	T2 AX	ax	no	5	1	top	
T2 HASTE/SSFSE	T2 FS AX	ax	yes	7	1	top	

Have the patient administer 120 mL US gel via syringe into her/his rectum. Make sure the US gel is present/visible and that the pubic symphysis & distal coccyx are present on the first cine sagittal images prior to continuing with the remaining cines.

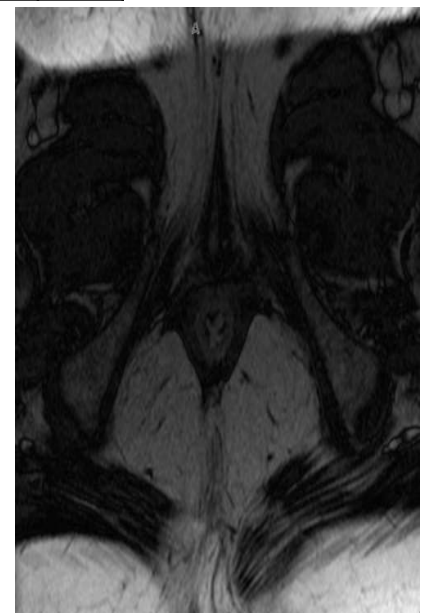
Cine True FISP	CINE SAG 1	sag	no	1.4	1	right	FOV as specified above
Cine True FISP	CINE SAG 2	sag	no	1.4	1	right	
Cine True FISP	CINE SAG 3	sag	no	1.4	1	right	
Cine True FISP	CINE COR	cor	no	1.4	1	front	
Cine True FISP	CINE AX	ax	no	1.4	1	top	



sagittal FISP



coronal FISP



axial FISP