

MRI Pituitary

Updated 10/18/23

Reviewed 05/14/25

Use pituitary field-of-view (FOV) and angulations as in the images below.

Notify a Radiologist if there is a brain abnormality to see if additional sequences are needed.

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
T1	T1 SAG	sag	no	4	1	left	whole brain
T1	T1 PIT SAG	sag	no	3	0	left	pituitary
T1	T1 PIT COR	cor	no	3	0	left	
T2	T2 FS PIT COR	cor	yes	3	0	back	

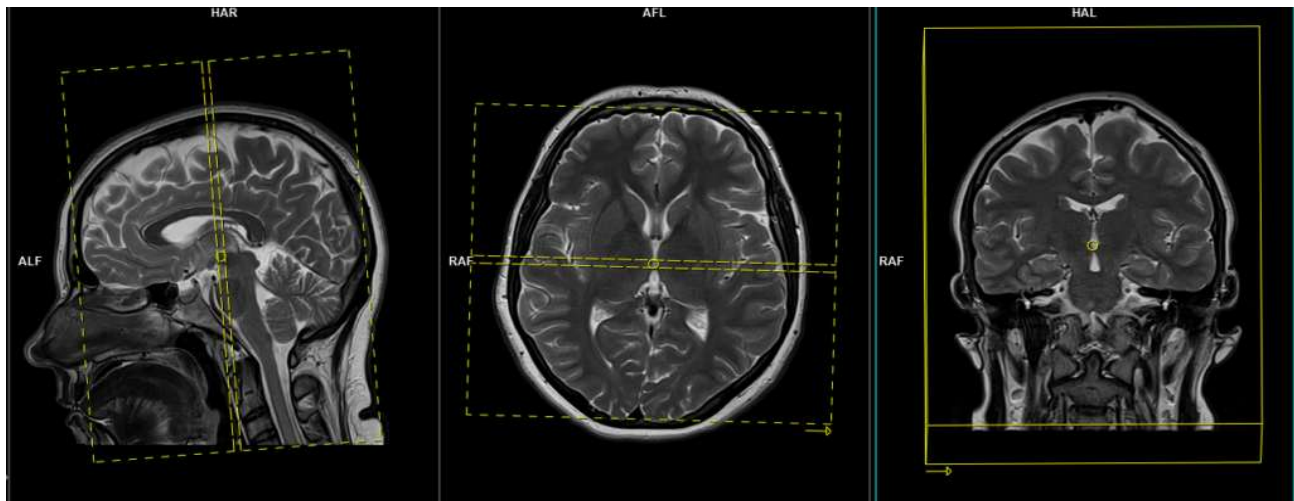
CONTRAST - 2 mL/sec standard dose gadolinium (0.2 mL/kg Clariscan or 0.1 mL/kg Gadavist) followed by 20 mL saline flush.

*T1	T1 DYNAMIC	cor	no	3	0	back	pituitary
T1	T1 FS POST SAG	sag	yes	3	0	left	
T1	T1 FS POST COR	cor	yes	3	0	back	
T1	T1 POST AX	ax	no	5	1.5	base	whole brain

*Do dynamic post contrast images in patients with microadenoma (unknown or follow-up), abnormal hormone levels, elevated prolactin level and pituitary bleed/hemorrhage.

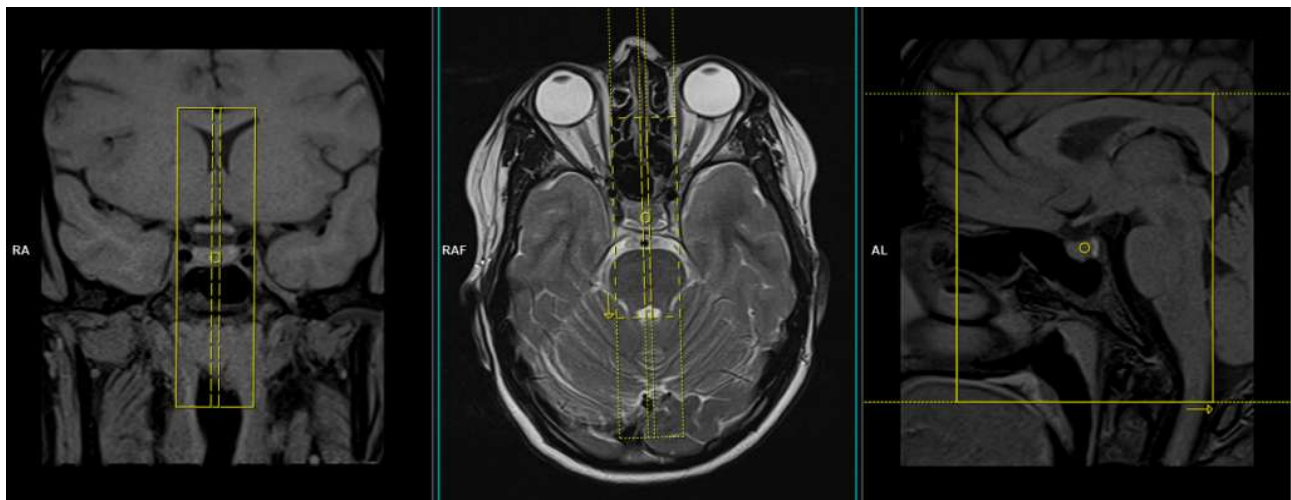
For all other indications, omit the dynamic sequences and hand inject.

Ask a Radiologist if you are unsure whether to do dynamic post contrast imaging or hand injection.



coronal FOV and angulation (perpendicular to the sella turcica in the sagittal plane)

MRI Pituitary



sagittal FOV and angulation (parallel to the midline of the brain in the axial plane)