

Diagnostic modalities utilized in radiology

Modality	Pros	Cons
X-ray	Widely available	Ionizing Radiation
	Inexpensive	Requires patient cooperation
	Doesn't require advanced technologist knowledge	Relatively insensitive (Cannot detect/locate an organ damage)
	Can be performed quickly	
	Portable	
Fluoroscopy (Dynamic x-ray)	Widely available	Requires ingestion/injection of contrast medium
	Inexpensive	
	Functional and Anatomic	Time consuming
	No sedation required	Requires patient cooperation
MRI	Best for soft tissue imaging	Expensive
	No ionization	Time consuming
	Can be done for pregnant women (in contrast to CT which <u>cannot</u> be done for a pregnant lady)	Phobia (narrow place)
	Images can be obtained in any plane (Axial, sagittal, coronal).	No metals allowed
		Motion
	Useful for soft tissue pathology (Tumor, infection)	
Ultrasound	No radiation	-
	Can be portable	
	Relatively inexpensive	