

MRI and CT Scanning – Table 2

	CT	MRI
Image production	X-ray emission	Magnet and radio waves
Radiation exposure	Higher than plain X-ray	None
Duration	Short (minutes)	Long (minutes-hours)
Patient comfort	Comfortable	Claustrophobia, noisy
Cost	Cheaper than MRI	More expensive than CT
Clinical application	Bone injuries, lung and chest imaging, cancer detection, acute intracranial hemorrhage	Soft tissue evaluation (e.g. ligaments, tendons, muscles, brain, spinal cord)
Intravenous contrast precaution	Allergic reaction is rare but more common than MRI contrast (gadolinium); risk of contrast-induced nephropathy in individuals with renal insufficiency	Allergic reaction is very rare but increased in individuals with kidney or liver disorders
Advantages	<p>Good imaging for bony structures</p> <p>Available for implanted metals or pacemakers</p> <p>Useful for emergent situations</p>	<p>Better imaging for soft tissues</p> <p>Different sequences highlight different types of tissue and pathology</p> <p>Able to change the imaging plane without moving the patient</p>