

MANAGING PATIENTS WITH ICDs

ICDs and MRI

Key take-away points

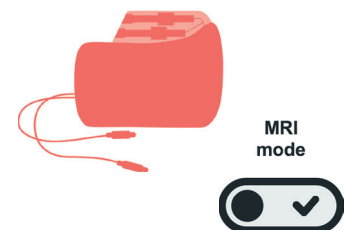
- 75% of ICD patients will go on to require an MRI in their lifetime.
- MRI-conditional devices are available.
- Devices have a specific MRI mode that must be enabled during the scan.



Problem with the fields

Field	Interaction	Hazard
Radio frequency (RF)	Device leads act as antennae and transmit energy as heat to the cardiac tissue	Tissue damage (this may further affect pacing therapy)
RF and gradient	Fields induce voltages, large enough to stimulate cardiac tissue, in the leads	Uncontrolled pacing—single, intermittent, or sustained tachycardia
RF, gradient, and static	Direct interaction with the electrical components of the ICD	ICD malfunction

MRI-conditional



Notes