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ICE 2022: MEETING AND EXPO

Today's MRI Accreditation Does Not Assure MRI Safety

By: Tobias Gilk, M.Arch., MRSO, MRSE

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Tobias Gilk, MRSO, MRSE

- 20 years of professional experience in healthcare, specializing in medical imaging.
- Senior VP of RAD-Planning.
- Founder of Gilk Radiology Consultants
- Member of HGRC, ACR MRI Safety Committee, ABMRS Board



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Housekeeping

- MRI Suite Peer Review Raffle
  (Drop Your Business Card At The Door)

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Rules of the Road

- If you have a question, ask.
- If you disagree, say so.
- If you want to share any of this, do.

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“What Does Accreditation Do?”

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"What Does Accreditation Do?"

Assurance of Quality & Safety for CMS
Condition for CMS Reimbursement
So ~89% of US Hospitals are Accredited

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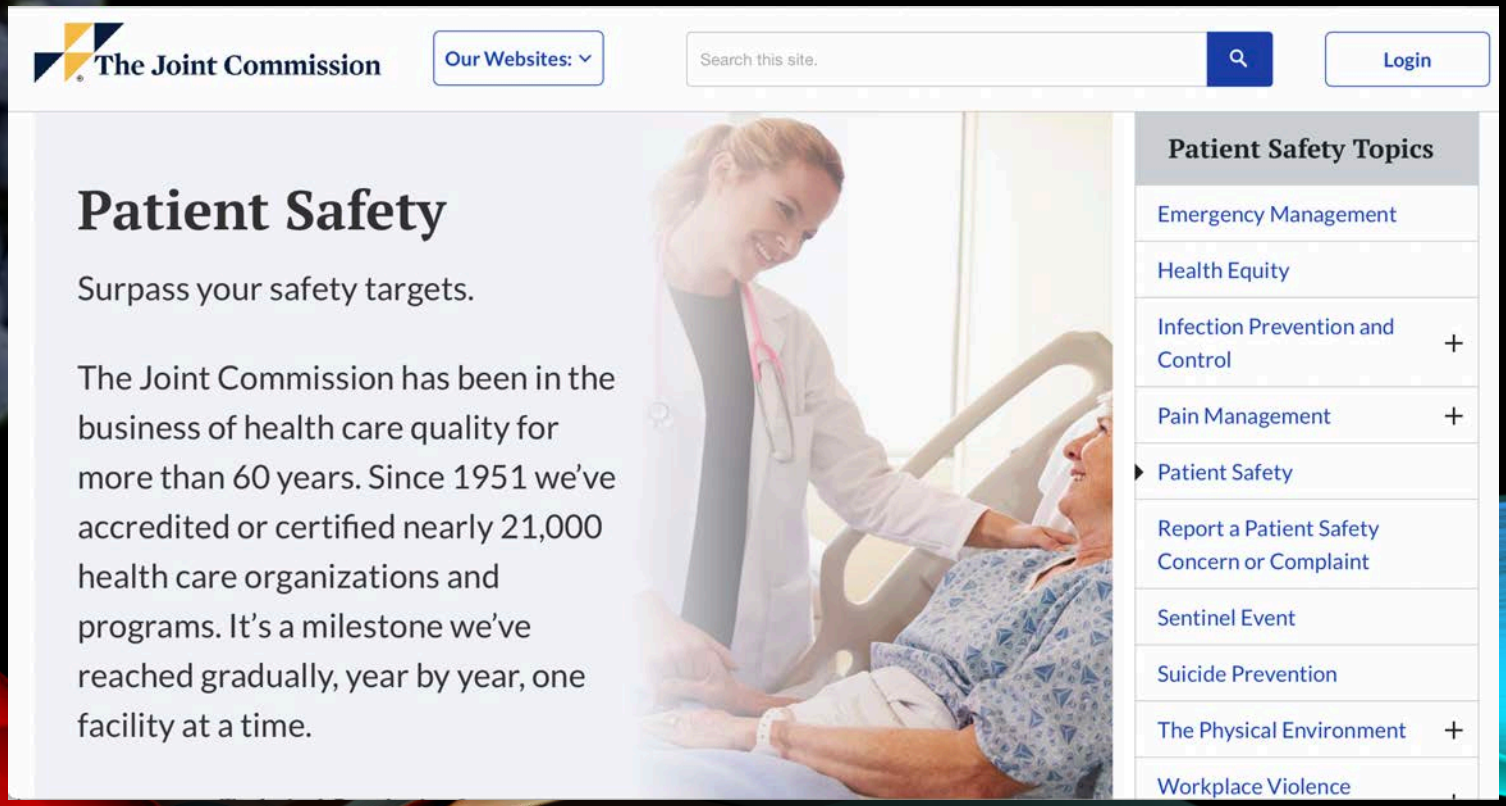
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“Does This Look Familiar…?”



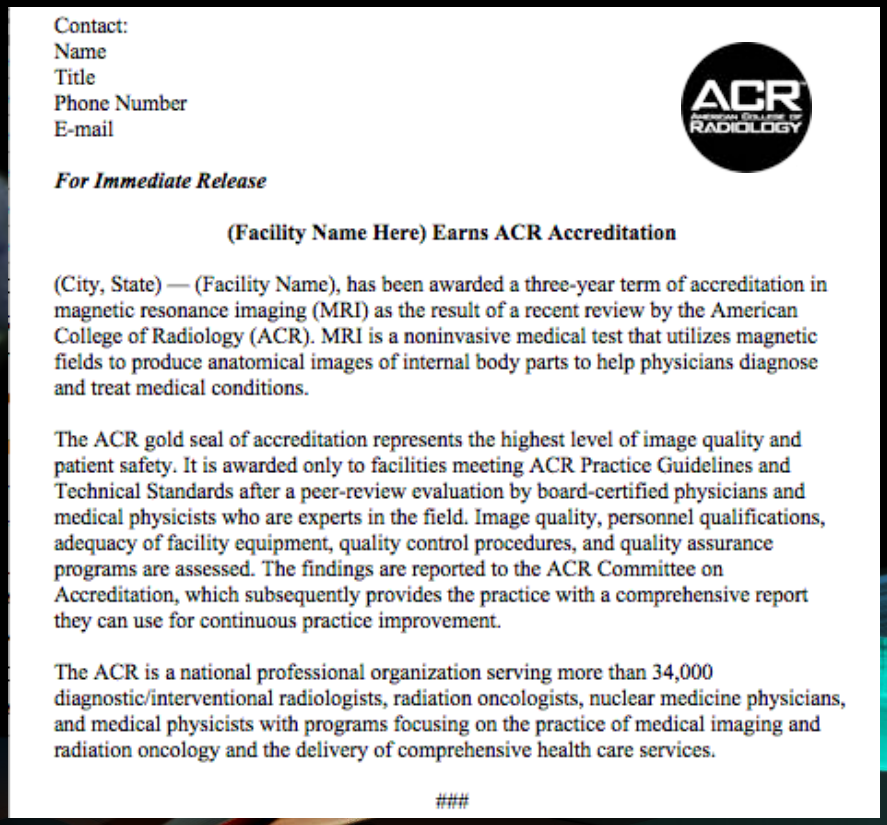
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Contact:
Name
Title
Phone Number
E-mail

For Immediate Release

(Facility Name Here) Earns ACR Accreditation

(City, State) — (Facility Name), has been awarded a three-year term of accreditation in magnetic resonance imaging (MRI) as the result of a recent review by the American College of Radiology (ACR). MRI is a noninvasive medical test that utilizes magnetic fields to produce anatomical images of internal body parts to help physicians diagnose and treat medical conditions.

The ACR gold seal of accreditation represents the highest level of image quality and patient safety. It is awarded only to facilities meeting ACR Practice Guidelines and Technical Standards after a peer-review evaluation by board-certified physicians and medical physicists who are experts in the field. Image quality, personnel qualifications, adequacy of facility equipment, quality control procedures, and quality assurance programs are assessed. The findings are reported to the ACR Committee on Accreditation, which subsequently provides the practice with a comprehensive report they can use for continuous practice improvement.

The ACR is a national professional organization serving more than 34,000 diagnostic/interventional radiologists, radiation oncologists, nuclear medicine physicians, and medical physicists with programs focusing on the practice of medical imaging and radiation oncology and the delivery of comprehensive health care services.

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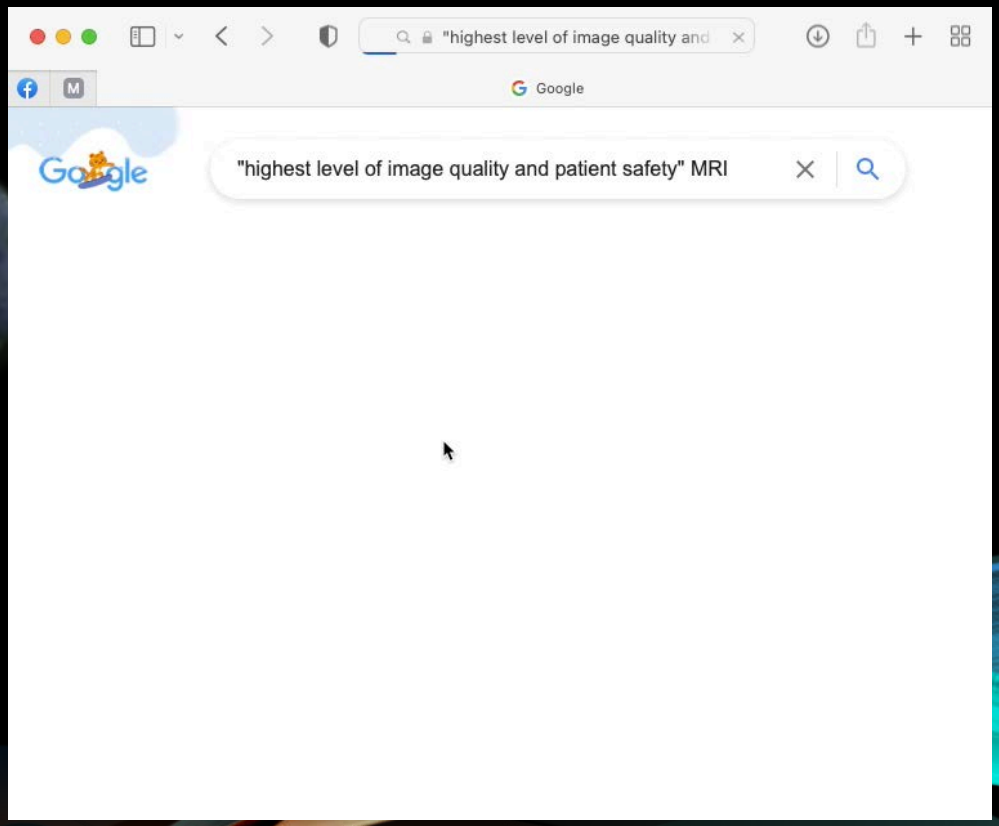
“Does This Look Familiar…?”

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“Does This Look Familiar…?”



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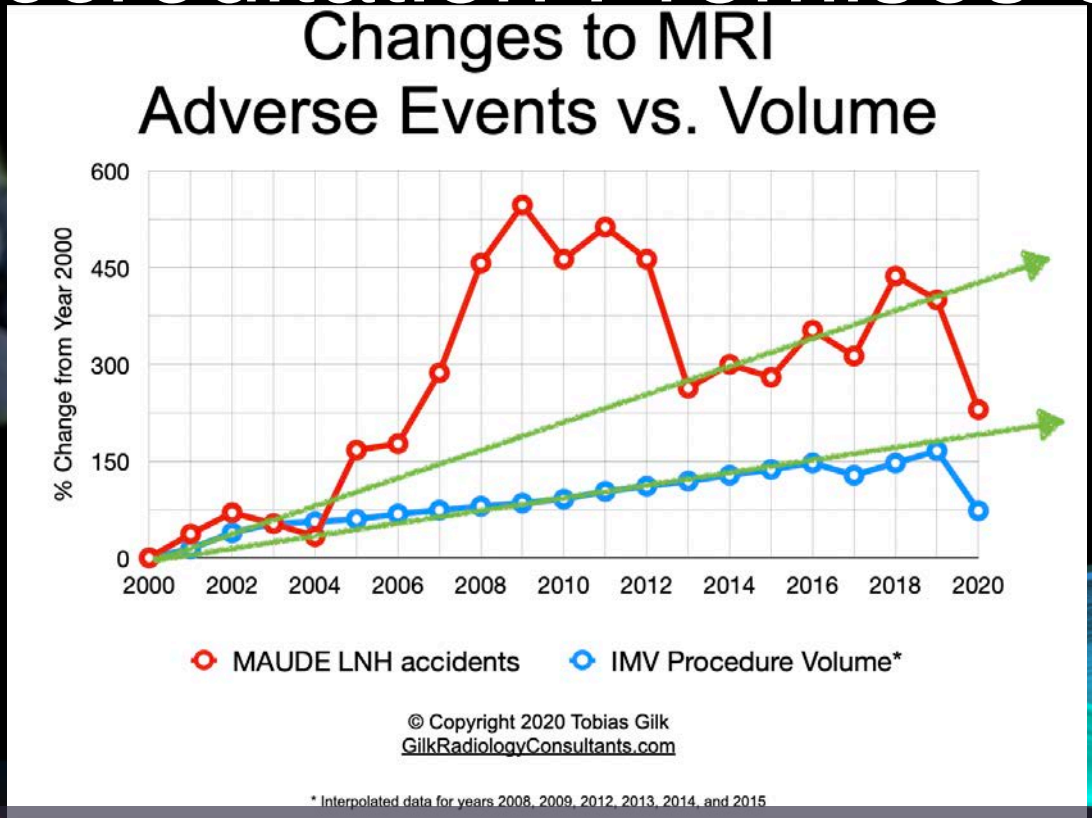
“So Accreditation Promises Safety…”

How is that working out for MRI?

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"So Accreditation Promises Safety…"



https://gilkradiologyconsultants.com/blog/the-mri-accident-chart-2000-2020/

How People Get Injured in MRI

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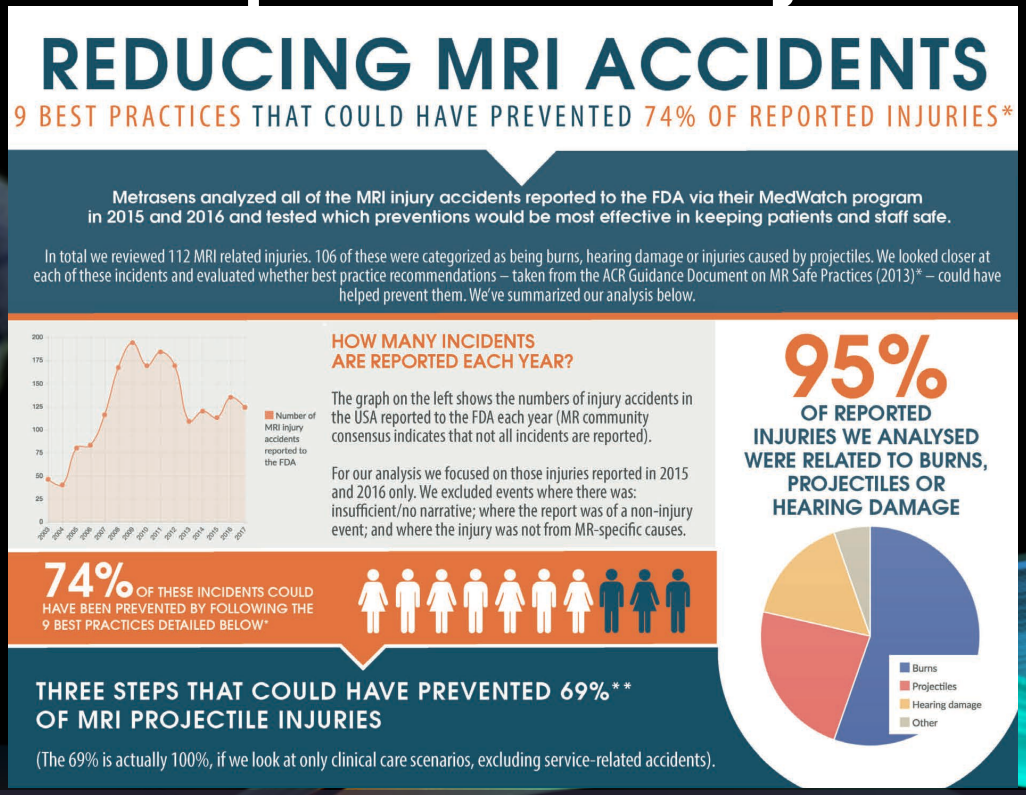
How People Get Injured in MRI

Metrasens Infographic
Best Practice Preventions of Harm

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How People Get Injured in MRI



https://www.metrasens.com/mri-safety/mri-safety-infographic/

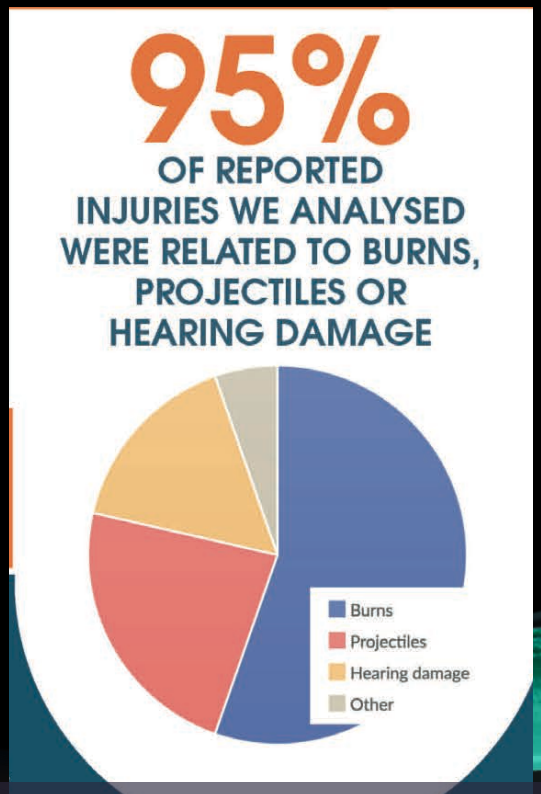
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How People Get Injured in MRI



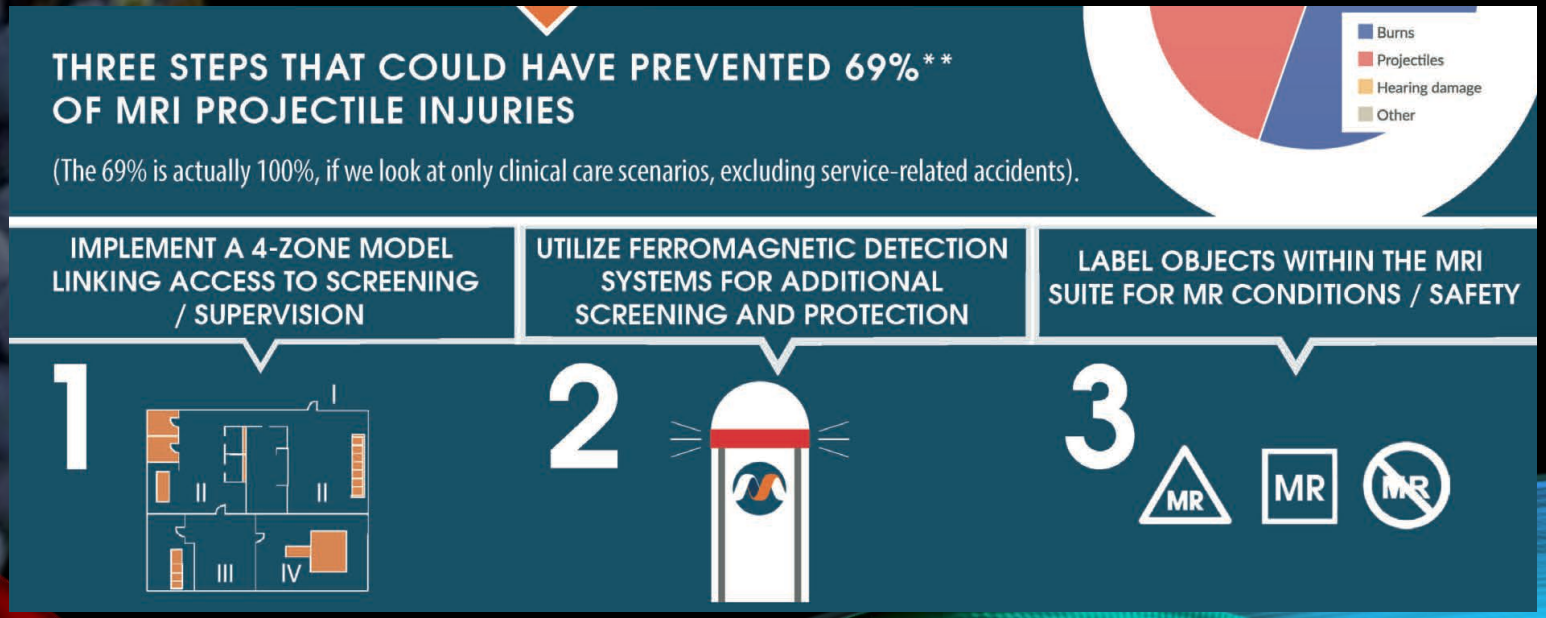
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How People Get Injured in MRI



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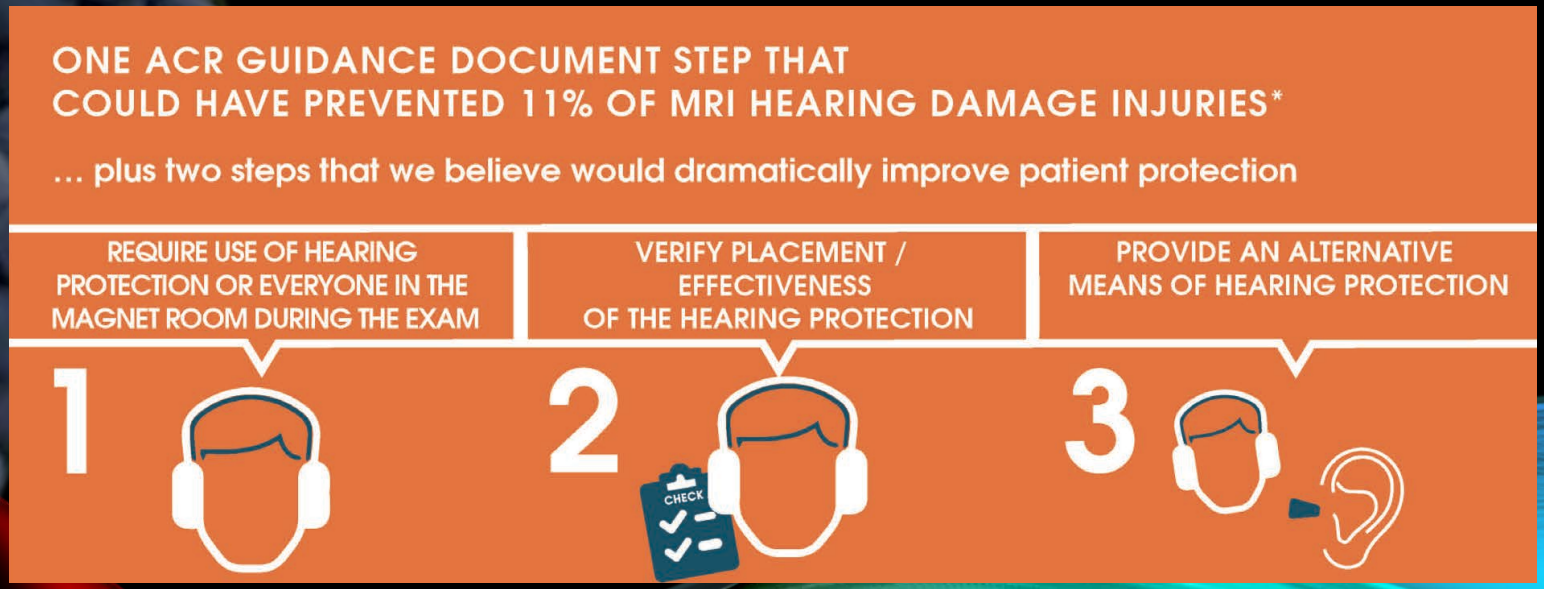
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How People Get Injured in MRI



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How People Get Injured in MRI



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“But if Everyone Is Accredited, And Accreditation Promise Safety…?”

Accreditation Is Breaking Promises to MRI

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Performance of Accreditation 'Big Dogs'

Hospital (TJC & DNV)
IDTF (ACR & IAC)

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Projectile Safety Protections

	Require 4-Zones	Require FMD	Req. Device Labeling
Joint Commission (H)			
DNV Healthcare (H)			
ACR (OP)			
IAC (OP)			

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Projectile Safety Protections

	Require 4-Zones	Require FMD	Req. Device Labeling
Joint Commission (H)	**[kinda]**	✗	✗
DNV Healthcare (H)	✗	✗	✗
ACR (OP)	**[kinda]**	✗	✗
IAC (OP)	✗	✗	✗

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RF Burn Protections

	Require Padding	Remove Conductors	Prevent Skin-to-Skin
Joint Commission (H)			
DNV Healthcare (H)			
ACR (OP)			
IAC (OP)			

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RF Burn Protections

	Require Padding	Remove Conductors	Prevent Skin-to-Skin
Joint Commission (H)	**[kinda]**	✗	**[kinda]**
DNV Healthcare (H)	✗	✗	✗
ACR (OP)	✗	✗	✗
IAC (OP)	✗	✗	✗

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Hearing Protection

	Require Protection	Verify Fit & Function	Provide Alt. Means
Joint Commission (H)			
DNV Healthcare (H)			
ACR (OP)			
IAC (OP)			

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Hearing Protection

	Require Protection	Verify Fit & Function	Provide Alt. Means
Joint Commission (H)	**[kinda]**	✗	✗
DNV Healthcare (H)	✗	✗	✗
ACR (OP)	✗	✗	✗
IAC (OP)	✗	✗	✗

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9-Prevention Summary

	9 Injury Preventions
Joint Commission (H)	**KINDA 4** / 9
DNV Healthcare (H)	0 / 9
ACR (OP)	**KINDA 1** / 9
IAC (OP)	0 / 9

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Performance of Accreditation ‘Big Dogs’

CMS Standards (Hospital & IDTF)

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Performance of Accreditation ‘Big Dogs’

- *Procedures to address risks associated with modalities that do not use ionizing radiation. For example, with respect to MRI:*
  - *Measures to prevent magnetic materials from being closer than is safe to the MRI suite, per nationally recognized guidelines;*
    - *If equipment and supplies, such as fire extinguishers and oxygen tanks, are located in the MRI area, they are MR-safe, i.e., they are non-ferromagnetic;*
  - *Provision of adequate and effective hearing protection to patients, staff and others who might be in the MRI suite while the scans are taking place; and*
  - *Measures to reduce the risk of thermal injuries/burns during MRI. This would include, but is not limited to, screening patients to identify those who may have metallic tattoos or metal in them, proper patient positioning, ensuring implants are MR Conditional, checking for electrically conductive materials that might be in close proximity to the patient and taking the appropriate precautions, and instructing the patient to immediately report any burning sensations experienced during the scan.*
- *Training required by personnel permitted to enter areas where radiologic services are provided.*
- *Training and, as applicable, qualifications, required for personnel who perform diagnostic imaging studies or therapeutic procedures utilizing radiologic services equipment. This includes proper operation of equipment per manufacturer’s instructions and hospital policy.*
- *Areas where radiologic services are provided must be equipped with the necessary equipment or materials to immediately respond to potential adverse events. This could include, but is not limited to, things like a crash cart, emergency stop mechanisms, cleaning and decontamination agents if applicable, etc.*

https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Downloads/Survey-and-Cert-Letter-15-38.pdf

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Performance of Accreditation 'Big Dogs'

- *Training required by personnel permitted to enter areas where radiologic services are provided.*
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CMS MRI Safety Training Reqs

	Personnel Permitted To Enter	Personnel Performing Studies
Joint Commission (H)	❌	✅
DNV Healthcare (H)	❌	❌
ACR (OP)	❌	❌
IAC (OP)	❌	**[kinda]**

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CMS MRI Safety Training Reqs

	Personnel Permitted To Enter	Personnel Performing Studies
Joint Commission (H)	❌	✅
DNV Healthcare (H)	❌	❌

CMS Radiology Safety Req's Only Apply To Hospitals!!

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CMS MRI Safety Training Reqs

	Personnel Permitted To Enter	Personnel Performing Studies
Joint Commission (H)	❌	✅
DNV Healthcare (H)	❌	❌
ACHC (H)	✅	✅
CIHQ (H)	❌	KINDA

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MRI Accreditation Does Not Assure MRI Safety

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MRI Accreditation Does Not Assure MRI Safety

Up To Individual Sites (P&Ps)
Up To Individual Oversight (MRMD / MRSO / MRSE)

If you think your accreditation provides assurance, think again!

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MRI Accreditation Does Not Assure MRI Safety

When was the last time your P&Ps were

- Compared to how you actually practice?
- Reviewed by supervising physician (radiologist)?
- Reviewed by radiology manager?

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MRI Accreditation Does Not Assure MRI Safety

Does your site have an MRI safety 'org chart'?

- Do you have appointed MRMD?
- Do you have appointed MRSO?
- Do you have appointed MRSE?

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MRI Accreditation Does Not Assure MRI Safety

Does your site have an MRI safety committee?

- How often does it meet?
- Do you set / measure P.I. goals?
- Does it have institutional support?

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Resources

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Resources

20-Year MRI Accident Rate Chart

- https://gilkradiologyconsultants.com/blog/the-mri-accident-chart-2000-2020/

Metrasens MRI Injury Prevention Infographic

- https://www.metrasens.com/mri-safety/mri-safety-infographic/

CMS Radiation Safety Accreditation Requirements

- https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Downloads/Survey-and-Cert-Letter-15-38.pdf

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Summary

- MRI Minimum Accreditation Req's Won't Prevent Injuries
- Min. Accreditation Req's May Not Even Meet CMS Stated Minimums (Hospitals)
- There Are NO MRI Safety Min. Accreditation Req's for IDTFs
- MRI Safety Is Almost Entirely Up To You!

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Today's MRI Accreditation Does Not Assure MRI Safety

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