

## Risk Assessment Form

Use this form for any detailed risk assessment unless a specific form is provided. Refer to your Summary of Hazards/Risks and complete forms as required, including those that are adequately controlled but could be serious in the absence of active management. The Action Plan and reply section is to help you pursue those requiring action.

<b>Name of Initial Assessor:</b>	Blair Johnston	<b>Post Held:</b>	MR Safety Expert
<b>Department:</b>	Imaging	<b>Date Initial review:</b>	17/06/2026
<b>Subject of Assessment:</b> E.g.: hazard, task, equipment, location, people			
Scanning patients in MRI with magnetic nail polish such as 'cat eye' nail polish.			
<b>Hazards</b> (Describe the harmful agent(s) and the adverse consequences they could cause)			
<p>It is known that some nail polish contain fragments of ferromagnetic metallic particles. There are unsubstantiated claims that radiofrequency energy used by the MRI scanner can induce heating in these metallic particles and potentially lead to a burn.</p> <p>Patients may attend their MRI appointments with magnetic nail polish in place without realising these could impact the MRI. Moreover, a professional would be required to remove the magnetic nail polish and there will be a cost associated with this. In addition, postponing a patient with magnetic nail polish for a scan may delay their on-going management or treatment which in itself may carry a risk to the patient. Thus, it is worth considering carefully whether the risk is such that it is necessary to reject or delay patients with magnetic nail polish from MRI.</p>			
<b>Description of Risk</b>			
Describe the work that causes exposure to the hazard, and the relevant circumstances. Who is at risk? Highlight significant factors: what makes the risk more or less serious – e.g.: the time taken, how often the work is done, who does it, the work environment, anything else relevant.			
<p>Whilst social media channels highlight RF induced heating or burns as a risk when scanning patients with magnetic nail polish, there have been no published adverse incident of a patient with magnetic nail polish coming to harm as a result of being scanned in the MR Environment. The size of these particles would suggest that RF induced heating or burns are unlikely.</p> <p>In some cases, permanent make up, which contains iron oxide particles, skin irritation and feeling of burning may be caused by static magnetic field acting on ferromagnetic or paramagnetic particles. This may also occur with magnetic nail polish but is less likely as they would generally at least have a base layer between the nail and the magnetic particles and thus are not in direct contact with the nails and/or skin.</p> <p>This situation continues to be monitored. Thus, there is no evidence to suggest scanning a patient with magnetic nail polish presents a significant risk of injury to the patient.</p>			

Existing Precautions	Describe how they might fail to prevent adverse outcomes.
<p>When patients attend for their MRI examination they are taken through an extensive MRI safety checklist. This asks a question relating to magnetic cosmetics.</p> <p>If found to have magnetic nail polish on, the patient must be informed of the low risk of heating. They must also be advised that the design of the magnetic nail polish could be blurred, but this is unlikely given the nails are cured. If the patient wishes to proceed with their scan then they are asked to press the buzzer if they experience any heating.</p> <p>If the nails will be in the field of view and cannot be removed by repositioning the patient's hands, consideration should be given to whether the artefact is likely to impact the diagnostic quality of the MRI. Imaging of the hands is unlikely to be diagnostic if the patient has magnetic nail polish so, in this scenario, it is recommended that the magnetic nail polish is removed if there is a benefit to proceeding with MRI.</p>	<p>The patient may fail to declare their nail polish is magnetic.</p> <p>Patients who are anaesthetised will not be able to respond to heating. In this circumstance, a clear clinical benefit from scanning the patient is required to offset the low risk of an adverse event as a result of heating.</p>

**Level of Risk** - Is the control of this risk adequate?

Give more than one risk level if the assessment covers a range of circumstances. You can use the 'matrix' to show how 'likelihood' and 'consequences' combine to give a conclusion. Also, be critical of existing measures: if you can think how they might fail, or how they could be improved, these are indications of a red or orange risk.

### Risk Matrix

<u>Likelihood</u>	<u>Impact/Consequences</u>				
	Negligible	Minor	Moderate	Major	Extreme
Almost Certain	Medium	High	High	V High	V High
Likely	Medium	Medium	High	High	V High
Possible	Low	Medium	Medium	High	High
Unlikely	Low	Medium	Medium	Medium	High
Rare	<u>Low</u>	Low	Low	Medium	Medium

■ Very High     
 ■ High     
 ■ Medium     
 ■ Low

### Current risk level

Given the current precautions, and how effective and reliable they are, what is the current level of risk? **Green** is the target – you have thought it through critically and you have no serious worries. Devise ways of making the risk green wherever you can.

**Yellow** is acceptable but with some reservations. You can achieve these levels by reducing the inherent risk and or by effective and reliable precautions.

**High (Orange) or Very High (Red) risks are unacceptable and must be acted on: use the Action Plan section to summarise and communicate the problems and actions required.**

## Action Plan (if risk level is High (Orange) or Very High (Red))

Use this part of the form for risks that require action. Use it to communicate, with your Line Manager or Risk Coordinator or others if required. If using a copy of this form to notify others, they should reply on the form and return to you. Check that you do receive replies.

Describe the measures required to make the work safe. Include hardware – engineering controls, and procedures. Say what you intend to change. If proposed actions are out with your remit, identify them on the plan below but do not say who or by when; leave this to the manager with the authority to decide this and allocate the resources required.

Proposed actions to control the problem List the actions required. If action by others is required, you must send them a copy	By Whom	Start date	Action due date

Action by Others Required - Complete as appropriate: (please tick or enter YES, name and date where appropriate)

Report up management chain for action	
Report to Estates for action	
Contact advisers/specialists	
Alert your staff to problem, new working practice, interim solutions, etc	

### Reply

If you receive this form as a manager from someone in your department, you must decide how the risk is to be managed. Update the action plan and reply with a copy to others who need to know. If appropriate, you should note additions to the Directorate / Service Risk Register.

If you receive this as an adviser or other specialist, reply to the sender and investigate further as required.

Date of last review As per QPULSE record

Next review date: As per QPULSE record