

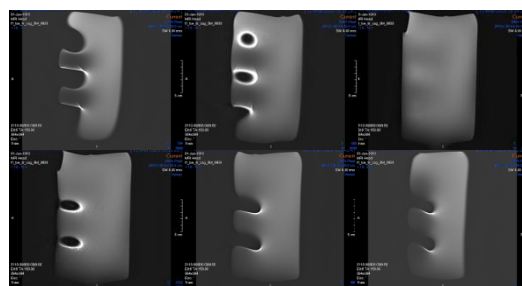
## Information on MRI Safety of FFP3 Masks

The MRI Physics Group at University Hospitals Birmingham NHS Foundation Trust performed basic tests (**NOT** conforming to ASTM international standards: **for information only**) of the FFP3 masks below at 1.5T and 3T. Please follow all local rules and guidance regarding MR safety and appropriate use of PPE in MRI.

**3M 8833** (photo below): The metal strip across the nose is non-ferromagnetic, but the staples holding the elastic are ferromagnetic and are subject to weak translational and torque forces within approx. 30 cm of the bore entrance of a 1.5T or 3T MRI scanner. If securely fitted, there is no projectile risk in or around a 1.5T or 3T scanner. In **our opinion** these masks are safe for staff positioning patients as at the bore entrance **the pull did NOT feel strong enough to unseal it**. (N.B. No fit-testing was carried out in the MR Environment.) We **cannot** verify safety for patients wearing this mask. Heating of the metal strip was not detected (by touch only, after scan) and burns are thought to be very unlikely especially given the layer of material insulating the metal from the skin. Images (t1\_tir\_tse) of a phantom “wearing” this mask were **affected by large artefacts (>5cm)**.

Make: 3M  
Model: 8833

Conditionally safe  
as described above



**3M Aura 1863** (photo below): The metal strip across the nose is non-ferromagnetic, but the staples holding the elastic are ferromagnetic. They are larger than the 8833 staples and undergo larger translational and torque forces within approx. 50 cm of the bore entrance of a 1.5T or 3T MRI scanner. In **our opinion** **the pull could unseal the mask within approx. 50 cm of the bore entrance**. (N.B. No fit-testing was carried out in the MR Environment.) We recommend that **staff wearing this mask should keep at least an arm's length away from the bore entrance and patients should not wear this type of mask inside a 1.5T or 3T MRI scanner**.

Make: 3M  
Model: Aura 1863



Safe for staff only with  
caution (as described)

**Easimask FSM18** (photo below): This mask has no ferromagnetic components and there are no detectable forces near or inside a 1.5T or 3T MRI scanner bore. No image artefacts were observed in images of a phantom “wearing” this mask. We consider this mask **MR Safe** and suitable to be used for staff and patients in MRI. (N.B. the **Easimask FSM16** has been tested by colleagues in the UK: it has a weakly ferromagnetic nose strip but no staples and is thought safe for staff use.)

Make: Easimask  
Model: FSM18



**MR Safe**