

MRI Guidance Document: Nasal Septal Buttons

Background

Nasal septal buttons (also known as perforation prostheses or plugs) are devices used for the non-surgical closure of nasal septal perforations. They have been commonly used since the 1970s to bridge holes in patients' nasal septa, as either a temporary or permanent treatment solution [1, 2].

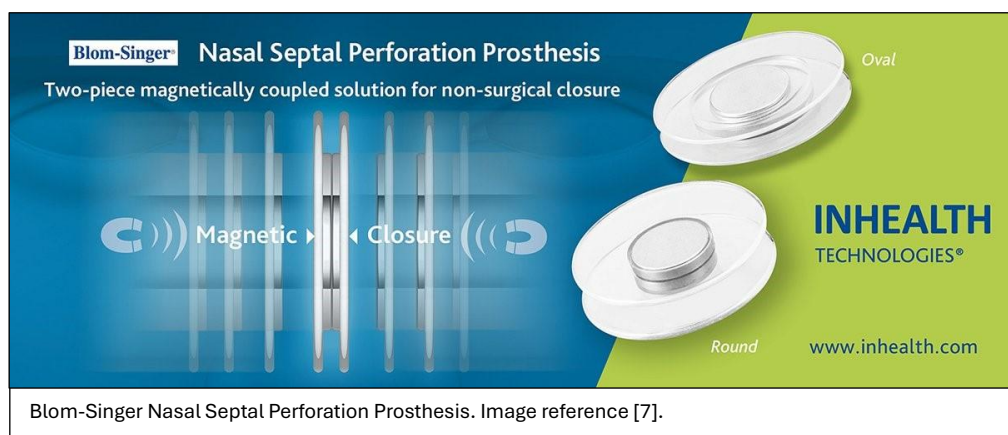
Nasal septal buttons were traditionally manufactured from silicon or plastic and as a result were labelled as MR Safe. However, in 2016 Blom-Singer created an MR Unsafe magnet-based nasal button, which is being increasingly used for patient treatment [2, 3].



Blom-Singer Nasal Septal Button

The Blom-Singer Nasal Septal Perforation Prosthesis is manufactured by InHealth Technologies and sold in the UK by Severn Healthcare. It contains two coupled neodymium magnets with silicone covers, creating a strong magnetic closure for patients' septal perforations [5]. There are a variety of size options, with magnet-based septal buttons being reported to improve patient comfort when compared to alternative treatment methods [6].

InHealth Technologies stated that the Blom-Singer nasal septal button “is contraindicated to be in situ during an MRI examination. It has not been tested [for] MRI safety, but we are certain that because of the size of the magnet, which is made of metal, that it would be considered unsafe. The prosthesis should be removed prior to the MRI exam and replaced after the exam.”



The official medical professional instructions for use (IFU) for the Blom-Singer Nasal Septal Perforation Prosthesis be found at this link: <https://inhealth.com/resources/document/view/id/7009/>

JISCMail Incident Discussion

On the UK MRI Physics mailbase in January 2025, 4 incidents were anecdotally discussed where the Blom-Singer nasal septal button had failed to be declared before a patient's MRI scan in sites across England and Northern Ireland. For one of these cases, the patient experienced a nosebleed. For another case, the patient “jumped off the table and ran out the scanner room” where the implant then fell out, requiring a clinician to re-insert. No harm to the patient or implant were reported in the third and fourth cases, but the scans were abandoned until removal of the implant by an ENT clinician was arranged. The clinical scientists discussing these incidents, reported that the patients felt movement of the nasal button when exposed to the MR Environment.

Safety Advice for MRI Staff in Scotland

The Severn Healthcare representative for Scotland was contacted and stated that Blom-Singer nasal septal buttons are “being placed in most health boards in Scotland”, going on to specifically mention Aberdeen, Dundee, and Fife. Magnet-based nasal septal buttons are still considered a new technique for nasal perforation treatment, and we expect to see more patients with these implants across Scotland as more ear, nose, and throat specialists (ENTs) prescribe and implant them.

The Blom-Singer nasal septal buttons are MR Unlabelled and are therefore considered to be MR Unsafe. They must be removed by an ENT clinician prior to patients attending their MRI scan; patients cannot remove these implants themselves. We recommend that sites contact their relevant local representatives to ensure clinicians are aware of the MRI contraindication and are informing their patients at implantation, to reduce the likelihood of incident.

If a patient is known to have a nasal septal button, an investigation should be carried out to exclude the possibility of it being magnet-based. This should involve but is not limited to, having a discussion with the patient, searching the patient’s clinical records, or contacting the patient’s ENT clinician.

While the Blom-Singer device is currently the primary concern for magnet-based nasal septal buttons, other manufacturers or new designs incorporating magnets may enter the market. This guidance document should be reviewed regularly to incorporate updates on new devices and their MRI safety status.

Key recommendations for MRI scanning patients with a nasal septal device:

- **Device Identification:** First, determine if the patient has a Blom-Singer/magnet-based nasal septal button. This is crucial as its magnetic properties have significant MRI safety implications.
- **Blom-Singer Device Management:** If the patient has a Blom-Singer/magnet-based nasal septal button, this implant must be removed by an ENT clinician prior to the patient attending their MRI scan. It is important to note that patients cannot remove these implants themselves.
- **Other Nasal Septal Buttons:** Any other nasal septal buttons (i.e., those not containing magnets, typically made of silicone or plastic) are generally considered MRI Safe.

References

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