

Information about MR compatibility of lid implants of SPIGGLE & THEIS Medizintechnik GmbH

Non-clinical testing has demonstrated that lid implants made of Platinum/Iridium (97/3 %) are MR conditional.



MR Conditional

A patient with this device can be safely scanned in a MR system meeting the following conditions:

- Static magnetic field of ≤ 3 Tesla, **with**
- Maximum spatial field gradient of 12,900 Gauss/cm (129 T/m)
- **Maximum force product of 231,000,000 G²/cm (231 T²/m)**
- **Theoretically estimated** maximum whole body averaged (WBA) specific absorption rate (SAR) of 2 W/kg (Normal Operating Mode)

Under the scan conditions defined above, the “Lid Chain” is expected to produce a maximum temperature rise of less than


2.2°C (2 W/kg, 1.5 Tesla) RF-related temperature increase with a background temperature increase of $\approx 1.0^\circ\text{C}$ (2 W/kg, 1.5 Tesla)

3.6°C (2 W/kg, 3 Tesla) RF-related temperature increase with a background temperature increase of $\approx 2.9^\circ\text{C}$ (2 W/kg, 3 Tesla)

after 15 minutes of continuous scanning.

In non-clinical testing, the image artifact caused by the device extends approximately 17.3 mm from the “Lid Chain” when imaged with a gradient echo pulse sequence and a 3 Tesla MR system.

REF article list MR compatibility:

	Lid implants made of Platinum/Iridium (97/3 %)					
	1500-06	1500-10	1500-14	1500-18	1500-22	
1500-08	1500-12	1500-16	1500-20			

We are happy to answer your individual questions regarding the MR compatibility of our lid implants.

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