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Vascular Access Catheters for Use in MRI

ICU Medical's complete line of Thermodilution, Advanced Sensor, and Central Venous Catheters are manufactured using components that have no ferromagnetic properties that would otherwise cause a magnetic or heat reaction during the MRI procedure. However, these devices do contain materials that have the potential to cause an artifact in the MRI view, and care should be taken to ensure that the catheter components are out of the field of vision.

In a study, these catheters were evaluated for safety in a 1.5T, 64-MHz system and found to meet the applicable "MR-Conditional" classification according to the American Society for Testing and Materials (ASTM) International, Designation: F2503-05.[1] *Standard Practice for Marking Medical Devices and Other Items for Safety in the Magnetic Resonance Environment.* This standard describes a series of testing for ferromagnetic reaction and a review of materials. A technical review of the catheter materials indicates that MR-Conditional is an appropriate classification for these devices. The complete line of ICU Medical Critical Care Catheters is therefore considered compatible with MRI Procedures, including abdominal and thoracic MRI.

The optical module and cable that are used in conjunction with the catheters do contain materials that are not classified as MR-Conditional and should always be disconnected from the catheter before the catheter is used in MRI.

If there are further questions or concerns, please visit our website at www.icumed.com or contact the corporate offices at 949-366-2183 or 800-824-7890.

Technical Services
ICU Medical Inc.

1. Shellock F, PhD; Shellock B, BS. Cardiovascular Catheters and Accessories: Ex-Vivo Testing of Ferromagnetism, Heating and Artifacts Associated with MRI. JMRI, Volume 8; Number 6, 1998.