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Page: 1/2

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## ProMRI Technology

MRI scans can be used to detect stroke, cancer, neurologic and orthopedic conditions. It is the preferred diagnostic tool in many clinical cases as it shows soft tissue organs in detail without exposing patients to radiation. [ProMRI® technology](#) enables cardiac device patients to access this tool.

The number of MRI scans globally is increasing by 10 percent per year.<sup>1</sup> Up to three in four cardiac device patients will be indicated for an MRI over their device's lifetime.<sup>2</sup> The number of cardiac device patients worldwide is increasing by 10 to 15 percent per year.<sup>1</sup>

### How does ProMRI work?

ProMRI technology allows cardiac device patients to safely undergo MRI examinations under certain conditions. BIOTRONIK offers ProMRI pacemakers, implantable cardioverter defibrillators (ICDs), cardiac resynchronization therapy (CRT) devices and the BioMonitor 2 heart monitor.

ProMRI devices can undergo scans safely due to fewer ferromagnetic (highly magnetic) components, protection circuits and a predefined MRI mode. Physicians set the device to the MRI mode (with limited device therapy) before the scan, and reset it to full therapy mode after the scan.

Newer BIOTRONIK pacemakers, ICDs and CRT devices feature MRI AutoDetect, which automatically recognizes an MRI environment. Physicians program a timeframe of up to two weeks when AutoDetect is turned on. In this period, the MRI mode will automatically activate when the device detects an MRI environment. After the scan, the device automatically switches back to its full therapy mode. MRI AutoDetect thereby improves patient safety by ensuring they receive the full benefit of their device for the maximum amount of time possible, while helping to ease the workflows between cardiologists and radiologists.

### Which devices are ProMRI? What scans are approved?

BIOTRONIK has the broadest portfolio of cardiac devices approved for use with MRIs on the market, including full-body scans for pacemaker, ICD, CRT and BioMonitor 2 patients. The online tool [ProMRI Check](#) makes it easy to check if BIOTRONIK systems are safe for MRIs.

### References:

<sup>1</sup> Morgan Stanley, ICD Market, 1996–2009.

<sup>2</sup> Roguin A et al. *Europace*. 2008, 10(3).