

THE TIMES OF INDIA

# Ticker that's MRI-proof

Kounteya Sinha | TNN

**New Delhi:** A cardiac patient with a pacemaker implanted inside his chest can now finally undergo an MRI scan. The world's first MRI-compatible pacemaker has now been used on Indian patients.

Four hospitals in India — Max (New Delhi), Apollo (Madurai), B M Birla (Kolkata) and SGPGI (Lucknow) — have successfully implanted the MRI-compatible pacemaker on cardiac patients over the last two weeks. Until now, patients with a pacemaker — three million at present — are barred from undergoing MRI scans.

Current pacemaker designs include a metal wire that connects the pacemaker to the heart. During an MRI, the wire can get hot, seriously affecting blood vessels and potentially inducing a rapid heart condition, which can prove fatal.

"The MRI-compatible pace-

## KEEPING PACE

- A pacemaker is a device placed inside the chest to help control abnormal heartbeat. It uses electrical pulses to make the heart beat at a normal rate

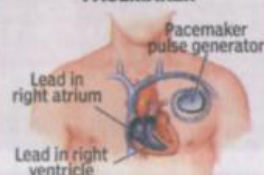
- Nearly 10 lakh pacemakers are implanted in patients worldwide annually. Around 30,000 are implanted in India

- MRI is an imaging technology of choice for neurological (brain), musculoskeletal, cardiovascular and oncological (cancer) imaging

- Current pacemaker design includes a metal wire that connects the device to the heart. During an MRI, the wire can get hot, which can ablate the blood vessels, scar the

maker called EnRhythm MRI SureScan Pacing system will be a boon for all patients with a pacemaker, especially those who are old," Dr Praveen

## PACEMAKER



heart, making it fatal

- The new pacemaker has a reduced metal wire diameter and reduced tightness of the coil, which minimises the conduction of magnetic signal to the heart tissue

- It also has a changed input filter which regulates unwanted electrical or magnetic signals coming into the pacemaker. All ferromagnetic components have been changed

Chandra, cardiologist from Max Hospital told TOI. The MRI-compatible machine costs just Rs 30,000 more than the present day pacemakers.