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SafePace: Pacemaker Lead Placement System

A new device offers surgeons a simple, accurate method to confirm successful pacemaker lead implantation by assessing mechanical stability, reducing the risk of repeat procedures due to inconclusive results.

Pacemakers are biomedical devices implanted into patients with hearts that have difficulty pumping blood throughout the body. Electrical stimulation from leads in the pacemaker helps the cardiac tissue contract in an effective rhythm. The stability of the pacemaker leads must be assessed to guarantee successful pacemaker implantation, but current methods of testing can leave a wide range of inconclusive results.

Researchers at Purdue University have developed a new device that will allow surgeons to accurately determine if pacemaker leads have been implanted stably. The device will be fitted mechanically to the pacemaker lead and the surgeon will easily be able to determine if the device disengages from the lead or not. If the device disengages, the implantation has been successful. Otherwise, if the device does not disengage, the implantation is not stable and the pacemaker implantation must be repeated. This device provides a simple method for testing pacemaker lead stability with a clear result.

To view a video related to this technology, click on this link: http://youtu.be/YMSs4vFzf48

Advantages:

-Simple to use

-Clear, accurate answer about pacemaker lead stability

Potential Applications:

-Medical/Health

TRL: 4

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Category
Biotechnology & Life Sciences/Analytical & Diagnostic Instrumentation

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