

MEDICAL BREAKTHROUGHS

RESEARCH SUMMARY

TOPIC: ARCTIC FRONT: FREEZING AWAY AFIB FIRST
REPORT: **MB #4937**

BACKGROUND: Atrial fibrillation, AFib, is a quivering or irregular heartbeat. These irregular heartbeats can lead to blood clots, stroke, heart failure and other heart-related complications. Around 2.7 million Americans are living with this disease. With AFib, the upper chambers of the heart beat irregularly instead of effectively to move blood into the ventricles. If a clot breaks off, enters the bloodstream and lodges in an artery leading to the brain, it can result in a stroke. About 15 to 20 percent of people who have strokes have this heart arrhythmia. If untreated, it can double the risk of heart-related deaths and is associated with a 5-fold increased risk for stroke.

(Source: <https://www.heart.org/en/health-topics/atrial-fibrillation/what-is-atrial-fibrillation-afib-or-af>)

CRYOABLATION AND AFIB: Cryoablation is a procedure used to restore normal heart rhythm by disabling heart cells that create an irregular heartbeat. This minimally invasive procedure uses a thin flexible tube, called a balloon catheter, to locate and freeze the heart tissue that triggers the irregular heartbeat. Using cold, rather than heat, to disable damaged tissue has been found to reduce the chances of impacting healthy heart tissue and surrounding structures. Recent studies have found cryoablation to be significantly more effective than medication, and patients generally experience less pain than with radiofrequency ablation.

(Source: <https://www.massgeneral.org/heart-center/treatments-and-services/cryoablation-for-the-treatment-of-atrial-fibrillation>)

NEW AFIB DEVICE: Cardiologists at The Ohio State University Wexner Medical Center were the first in the United States to perform a procedure testing a new type of ablation technology on patients suffering from AFib. The global clinical trial is assessing pulsed field ablation (PFA) technology. Developed by Medtronic, the PulseSelect PFA System uses pulsed electric fields to interrupt pathways and AFib triggers in the heart. By doing this, it can help the heart restore its regular rhythm. This technology is non-thermal (meaning there is no heat or extreme cold) and can efficiently isolate the pulmonary veins, which are a major source of triggers of the arrhythmia. "This new technology is potentially everything we've hoped for in catheter ablation. It's easier to use, more efficient and will be better for patients because there's less risk of damage to surrounding tissue and a shorter recovery time. It also may eliminate the need for overnight hospital stays," said Dr. John Hummel, an electrophysiologist at Ohio State's Richard M. Ross Heart Hospital.

(Source: https://www.eurekalert.org/pub_releases/2020-02/m-fpi022620.php)

FOR MORE INFORMATION ON THIS REPORT, PLEASE CONTACT:

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If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at mthomas@ivanhoe.com