New A-fib treatment option uses cold instead of heat

Patients suffering from a serious form of atrial fibrillation, the most common heart rhythm proble in the US, now have a new treatment option that uses cold therapy rather than heat to correct t faulty electrical circuits in the heart.

Unlike traditional ablation treatments that use heat generated by radiofrequency energy to destroy the abnormal tissue, physicians at The Ohio State University Medical Centre's Richard M. Ross Heart Hospital are using a minimally invasive, cryoballoon treatment to correct paroxysmal atrial fibrillation (PAF). This catheter system uses freezing energy, or cryoablation, to eliminate electrical triggers from the abnormal tissue in or near the pulmonary veins. A cooling material is delivered within the catheter to freeze and dest the cells at the entrance to the pulmonary veins.

"The value of the new technology over existing ablation methods is that it enables physicians to safely and effectively isolate the pulmonary veins," says Dr. John Hummel, director of clinical electrophysiology research at Ohio State's Medical Centre. "This approach allows patients' hearts to be restored to an appropriate rhythm so they can resume normal, daily activities following treatment."

Dr. John Hummel of OSU Medical Centre discusses cryoballoon therapy.

Atrial fibrillation (AF) is a rapid and irregular heart rhythm that originates from the top chambers of the heart called the atria. The rapid rate in the atria causes the bottom chambers of the heart, the ventricles, to also beat rapidly and irregularly, predisposing the patient to heart failure and stroke. In a manner similar to other pumps, the heart pump does not work as efficiently as it should when it is beating rapidly and irregularly. T inefficiency often causes symptoms such as a skipped heart beat, fatigue, shortness of breath and lack of energy or, in some instances, no symptoms at all. AF affects nearly three million people in the US

Half of all diagnosed AF patients fail drug therapy, and if left untreated patients have up to a five times high

risk of stroke and an increased chance of developing heart failure.

Source: Ohio State University