

Clinical trial testing new technique to treat life-threatening ventricular tachycardia

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Loyola Medicine is the only center in the Midwest enrolling patients in a landmark clinical trial of a new procedure to treat a life-threatening heart rhythm disorder called ventricular tachycardia.

The trial is intended for patients who do not respond to either medications or a standard heart procedure called catheter ablation.

Standard catheter ablation employs a single catheter to cauterize a small amount of heart tissue that sends out erratic electrical signals that trigger irregular heartbeats. The clinical trial is testing a new ablation procedure that employs two catheters, enabling the physician to reach and burn troublesome areas deeper inside heart muscle.

Loyola is one of six centers in the U.S. participating in the trial, which will enroll 200 patients. Principal investigator at the Loyola site is David Wilber, MD, director of Loyola's division of cardiology and director of clinical electrophysiology.

Ventricular tachycardia (VT) is the leading cause of sudden cardiac death. This heart rhythm disorder, known as an arrhythmia, is caused by abnormal electrical signals in the lower chambers of the heart, called ventricles.

A heart at rest normally beats about 60 to 100 times per minute. In VT, erratic electrical signals cause the heart to beat more than 100 times per minute. Because the ventricles are beating so fast and are out-of-synch

with the upper pumping chambers, the blood is not pumped efficiently. Symptoms can include dizziness, palpitations, fainting and sudden cardiac death.

The standard treatment for VT is medication, followed by [catheter ablation](#) if medication doesn't work. In an ablation, an electrophysiologist (a cardiologist who specializes in heart rhythm disorders) guides a catheter through blood vessels to the spot in the heart where the erratic electrical signals originate. The electrophysiologist positions the catheter against the heart muscle wall and releases radio frequency energy that burns the troublesome tissue.

However, if the source of the erratic [electrical signals](#) is deep within the heart muscle, the single-catheter technique may not burn deeply enough to be effective. The two-catheter technique is designed to treat such cases. The catheters are placed on either side of the [heart muscle](#). Energy travels between the two catheter tips, burning tissue that can't be accessed with a single catheter.

The trial is titled Bipolar Catheter Ablation for the Treatment of Refractory Scar-Related Ventricular Arrhythmia. Principal investigator for the overall trial is Srinivas Dukkipati, MD, of the Icahn School of Medicine at Mount Sinai.

Patients seeking information about enrolling in the trial at Loyola can call 708-216-2644.

Loyola performs more than 500 [catheter](#) ablations per year for VT, atrial fibrillation and other [heart rhythm disorders](#). Loyola's team of expert electrophysiologists, advanced practice nurses, pacemaker clinic nursing staff, imaging experts and other professionals work together to manage the diagnosis and treatment of [heart](#) arrhythmias.

Loyola offers expertise in cardiac device management, including device implantation, lead extractions and medical management. Loyola's state-of-the-art equipment allows physicians to use leading-edge technologies to perform procedures.

Provided by Loyola University Health System

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