

An Overview of Types and Functions of Cardiac Pacing Leads

Cardiac

pacing, also known as artificial cardiac pacing or pacemaker implantation, is a procedure that uses electronic medical devices to regulate the beating of the heart. Cardiac pacing involves the careful placement of leads, which are thin, flexible wires that deliver electrical impulses from a pacemaker to the heart muscles. These leads are essential for cardiac pacing to work effectively as they allow the pacemaker to detect the heart's electrical signals and deliver stimulation pulses when needed.

Different Types of Leads

There are different types of cardiac pacing leads used for cardiac pacing based on the location where they are placed in the heart.

Ventricular Leads

[Cardiac](#)

[Pacing Leads](#) are used to pace the lower chambers of the heart, which are the ventricles. They have a small tip electrode that is placed inside the ventricle, usually the right ventricle, through a vein. The electrode delivers the electrical impulse to make the ventricle contract. Ventricular pacing is commonly used for slower heart rhythms originating in or below the ventricles.

Atrial Leads

Atrial leads are similar to ventricular leads but have a tip electrode placed inside the upper chambers of the heart, which are the atria. The most common location is the right atrium. They are used for pacing the atria, usually in conjunction with ventricular pacing. Atrial pacing is needed for certain arrhythmias that affect the atria.

His Bundle Pacing Leads

His bundle pacing leads are a specialized type that are placed near the bundle of His, which conducts electrical signals from the atria to the ventricles.

