

**Overview:**

A *pacemaker* is a battery operated device that sends electrical impulses to the heart to make it contract in a normal rhythm. Some pacemakers supply constant impulses at a predetermined intervals; others send impulses only when the heart is not beating normally. Pacemakers are typically installed in individuals who experience an abnormally low heart beat rate, a condition referred to as *bradycardia*. This condition, which can lead to symptoms of light headedness, dizziness, or even black-outs, is often caused by various types of *heart blockages*, certain medications, or by a group of conditions collectively referred to as *sick sinus syndrome*.

Pacemakers are also sometimes installed for heart beat irregularities (*arrhythmias*). Temporary arrhythmias, which are often caused by emotional stress, exercise, or significant alcohol consumption, do not typically require the installation of a pacemaker. *Chronic arrhythmias*, often caused by heart disease, can lead to significant risk of premature mortality and sometimes require the installation of a pacemaker. Certain unspecified heart muscle disorders, referred to as *cardiomyopathies*, may also require installation of a pacemaker.

**Impact on Life Underwriting:**

The fact that a pacemaker has been installed in a proposed insured need not lead to great concern. The design, durability, and understanding of these devices has made machine failure a very small risk factor. Infection and blood clot formation can result from pacemaker installation; however, these complications occur at such a low rate that they have minimal impact on life underwriting.

Key to estimating impact on mortality (and therefore likely underwriting action) is the determination of the type of underlying problem that led to the installation of the pacemaker. Individuals with certain congenital heart blocks, electrical conduction disturbances, or post surgical lesions are typically considered cured, once the pacemaker has demonstrated its ability to restore normal heart rhythms. Such cases are often issued at standard rates or with low table ratings. On the other hand, individuals with a history of severe and progressive heart disease are either highly rated or declined for individual coverage. The following table provides some examples of underwriting decisions common for individuals with pacemakers. SB 04/23/2001

<b>Newly installed pacemaker</b>	Typically postponed for six months
<b>Pacemaker installed less than six years ago:</b> Proposed insured under age 14	Decline
Proposed insured age 14 - 30	Table 5 and up
Proposed insured age 31 - 49	Table 3 to Table 4
Proposed insured age 50 - 59	Table 2
Proposed insured age 60 +	Standard to Table 2
<b>Pacemaker installed six years or more:</b> No complications (any age)	Standard
With cardiomyopathy	Decline
With chronic atrial fibrillation	Table 12 and up
With complete heart block	Table 4 and up
With congenital heart block	Table 2 to Table 4
With coronary artery disease	High rating or decline, depending on CAD
With sick sinus syndrome	Sometimes postponed for 1 year, then Std. to T4
<b>Abandoned pacemaker</b> (i.e. pacemaker or wires still in place but not used)	Standard