

# Pacemakers

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A pacemaker is a small battery-operated device which helps the heart beat regularly and at an appropriate rate. It uses batteries to send electric pulses to the heart to help it pump properly. An electrode is placed next to the heart wall and small electrical charges travel through the wire to the heart. The most common pacemakers are demand pacemakers, which turn on only when the heart is beating too slow and turns off when the heart is above a certain level.

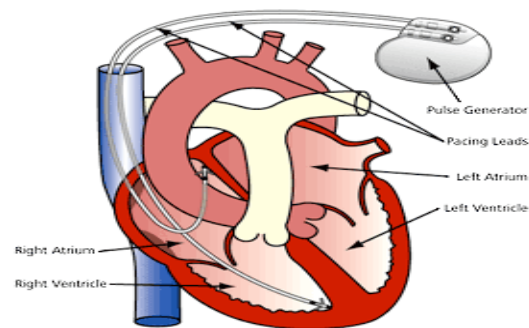


Naturally your body has its own form of a pacemaker which regulates the heartbeat. The tissue that has this function is called the sinoatrial node. However your body has several other natural pacemakers but the sinoatrial node is the one that is found to be the most effective because it can make the heart beat up to one hundred times a minute.

A pacemaker can be either permanent or temporary. Usually a temporary pacemaker is used to treat temporary heart problems such as slow heart beat due to a heart attack, heart surgery, or

medicine overdose. Also it's used on a patient until a permanent pacemaker is implanted through surgery.

People with aging or heart disease damages the sinus node's ability to set the correct pace for your heartbeat. Such damage can make your heart beat too slowly, or it can cause long pauses between heartbeats. Also if the electrical signal between your hearts's upper and lower chambers are partially or completely blocked or slowed down.



As technology advanced over the years, the pacemaker has been used for multiple functions. A pacemaker can monitor and change your blood temperature and/or breathing rate.

Your body has several of its own natural pacemakers but they are not always sufficient enough, which is why the artificial pacemaker is implemented. With the pacemaker over thousands of lives are being saved every day.

## REFERENCES

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