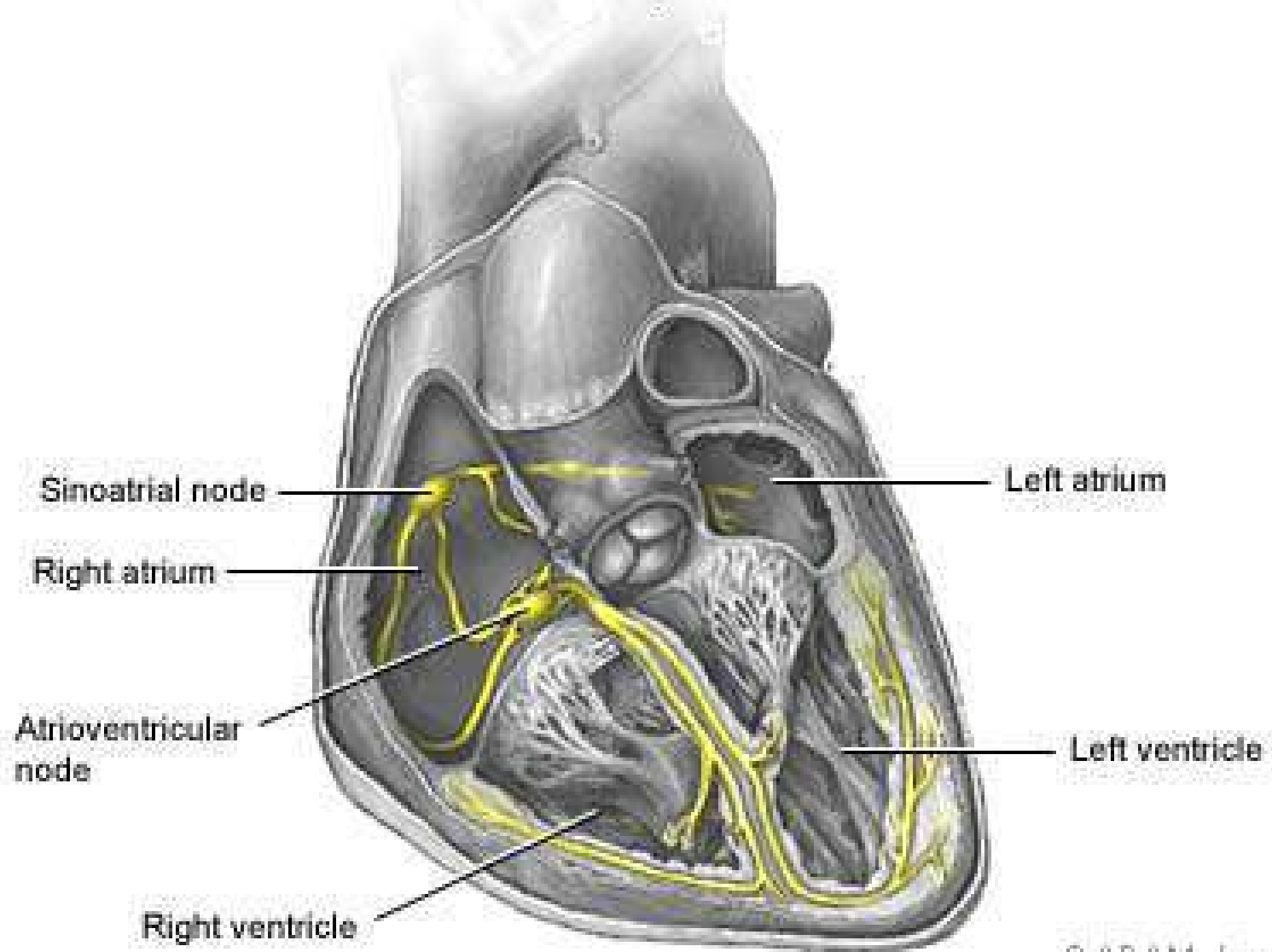


# Electrical Conduction of the Heart

## Intrinsic conduction system of the heart



# The \_\_\_\_\_ Node : SA Node

- Establishes the \_\_\_\_\_, also called the natural pacemaker of the heart
- Located in the posterior wall of the \_\_\_\_\_
- Electrical \_\_\_\_\_ from the SA node starts each wave of muscle \_\_\_\_\_ in the \_\_\_\_\_

# The \_\_\_\_\_ Node: AV Node

- \_\_\_\_\_ from the SA node travel to the AV node
- Located on the floor of the \_\_\_\_\_  
\_\_\_\_\_ near the \_\_\_\_\_
- Once the electrical impulse goes through the AV node it then travels to the \_\_\_\_\_

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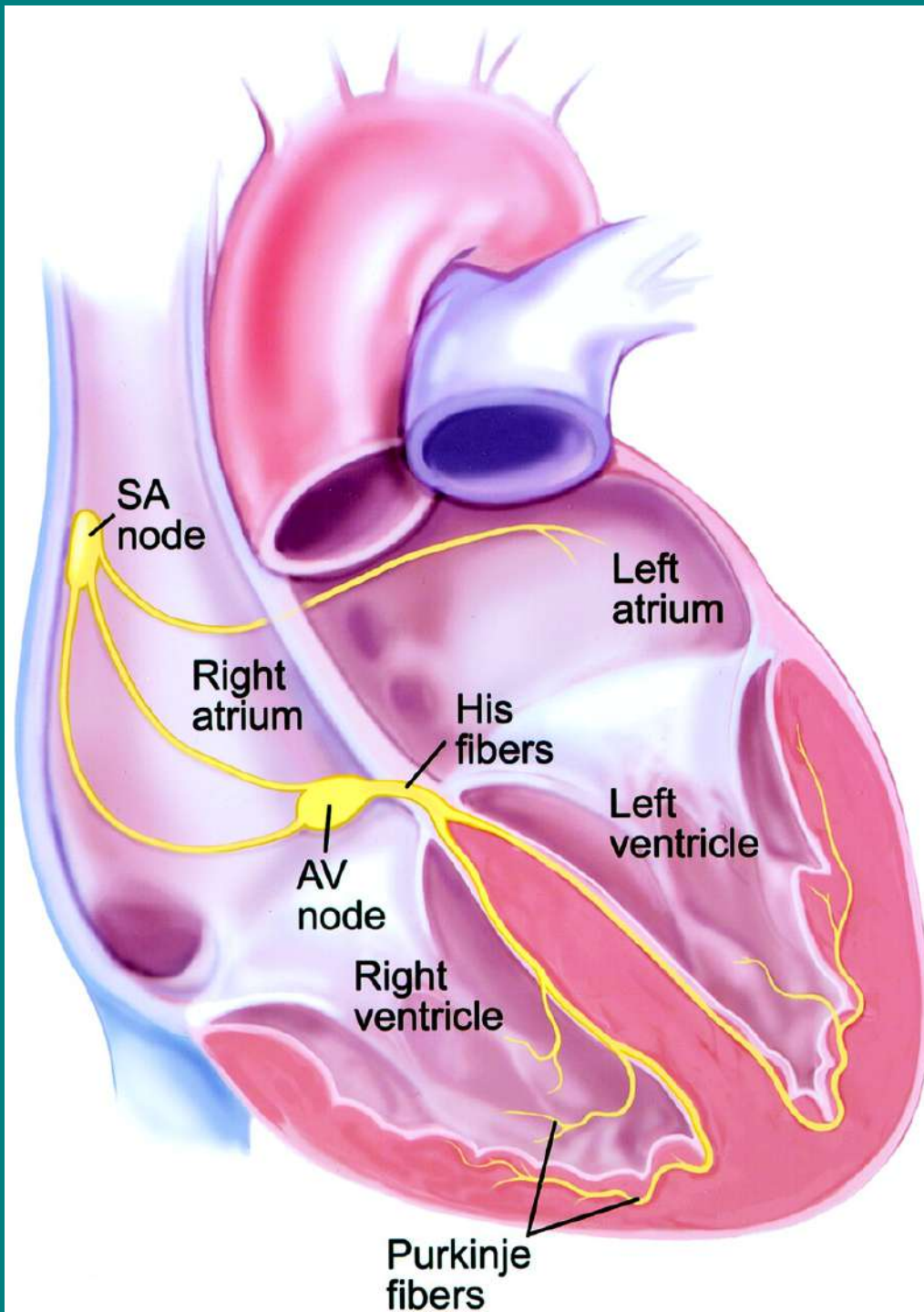
- The bundle of His, named after Wilhelm His Jr. (19<sup>th</sup> century Swiss MD)

- Located within the \_\_\_\_\_  
\_\_\_\_\_

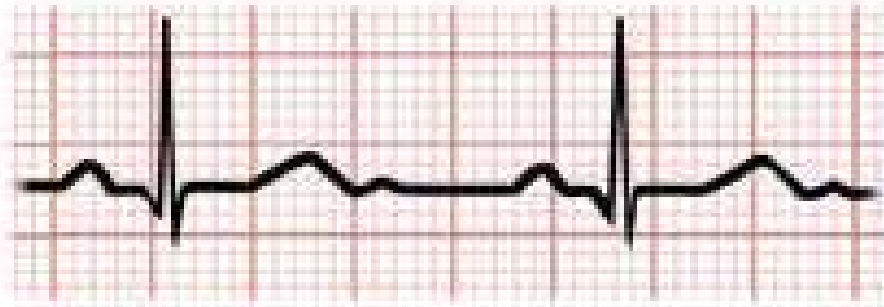
- Branches of the Bundle of carry impulses to the Right and Left Ventricles and to the \_\_\_\_\_.

# Purkinje Fibers

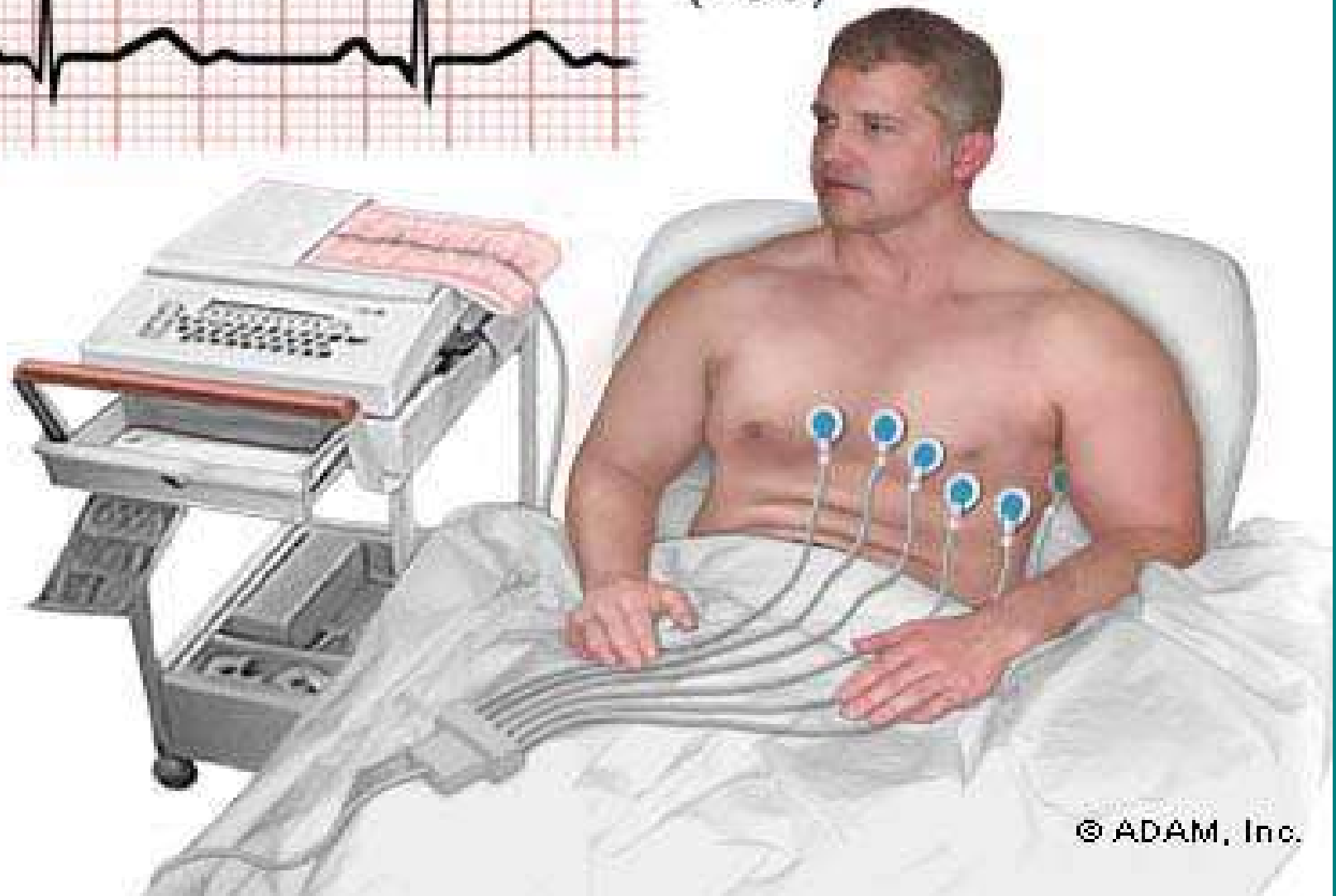
- Purkinje fibers named after Johannes Purkinje a 19<sup>th</sup> century physiologist
- Causes the \_\_\_\_\_ to \_\_\_\_\_ simultaneously forcing \_\_\_\_\_ into the aorta and \_\_\_\_\_.



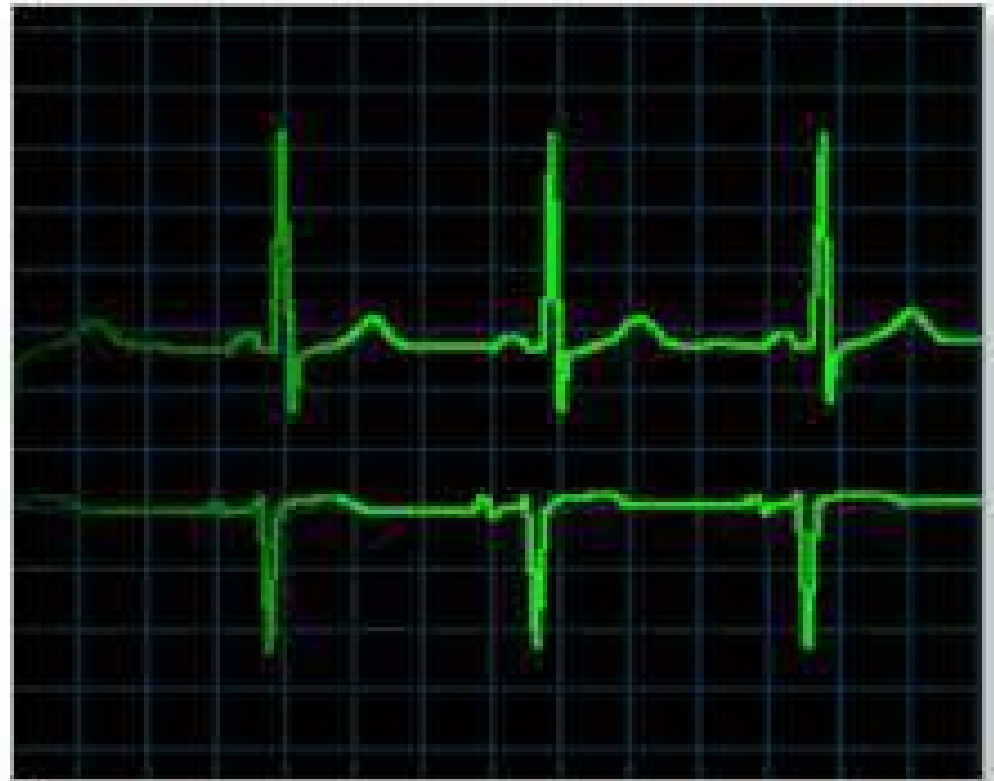
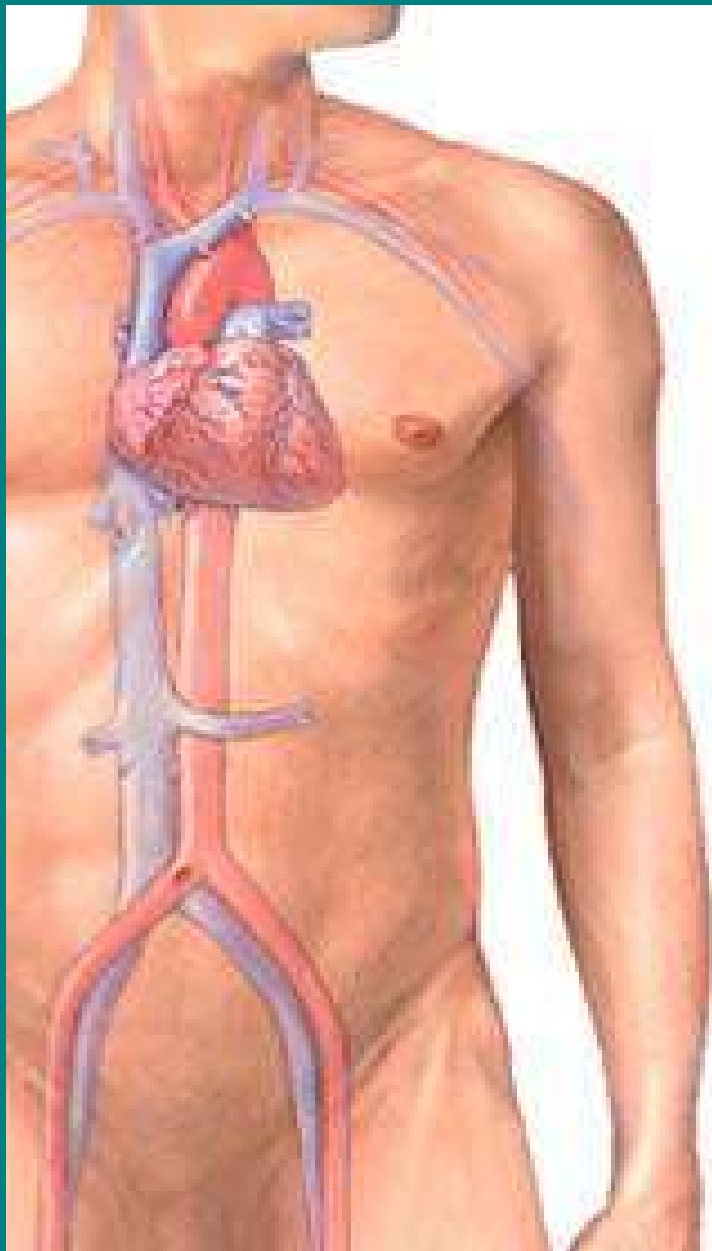
[https://www.youtube.com/  
watch?v=fZT9vIbL2uA](https://www.youtube.com/watch?v=fZT9vIbL2uA)



Electrocardiogram  
(ECG)



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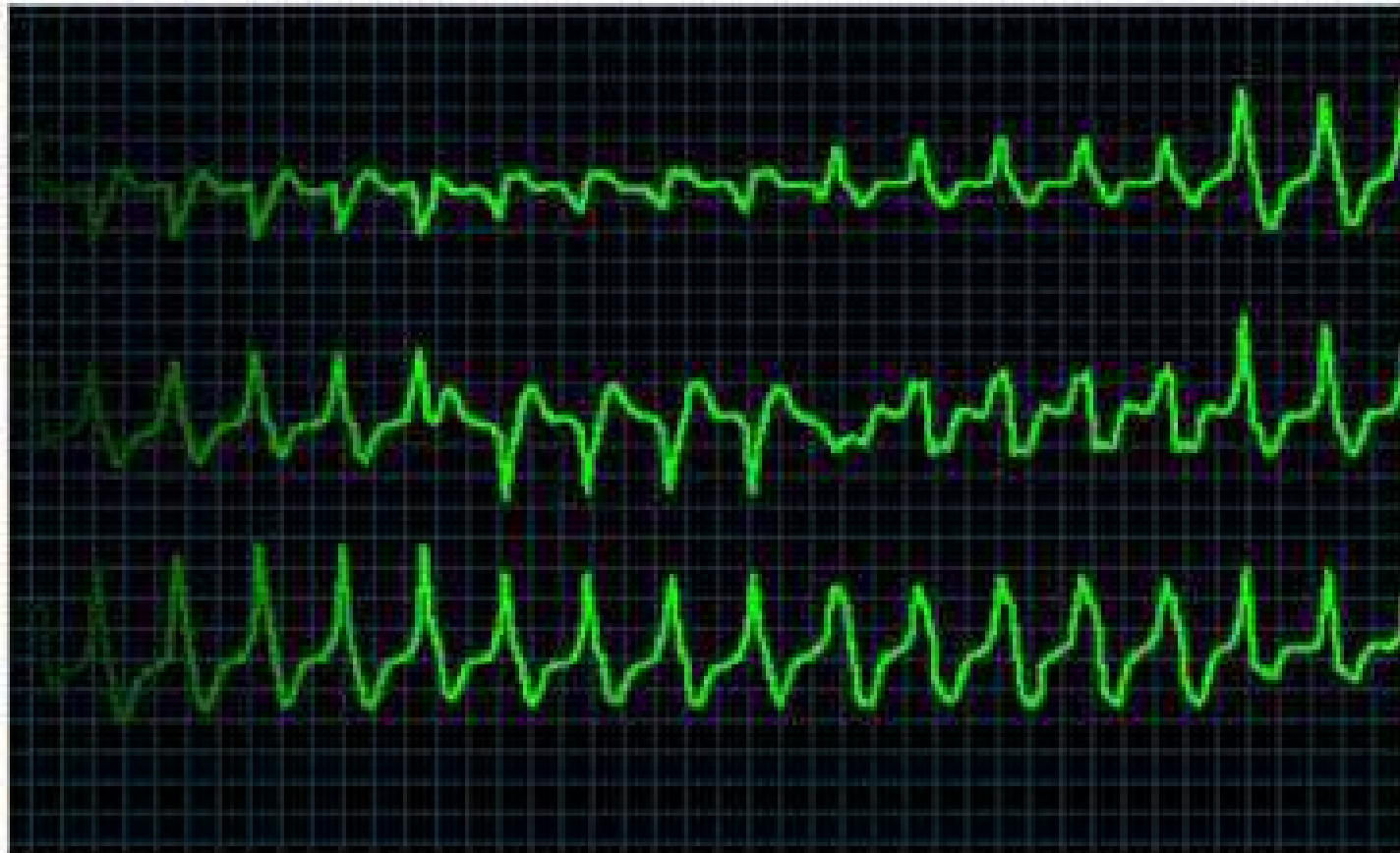


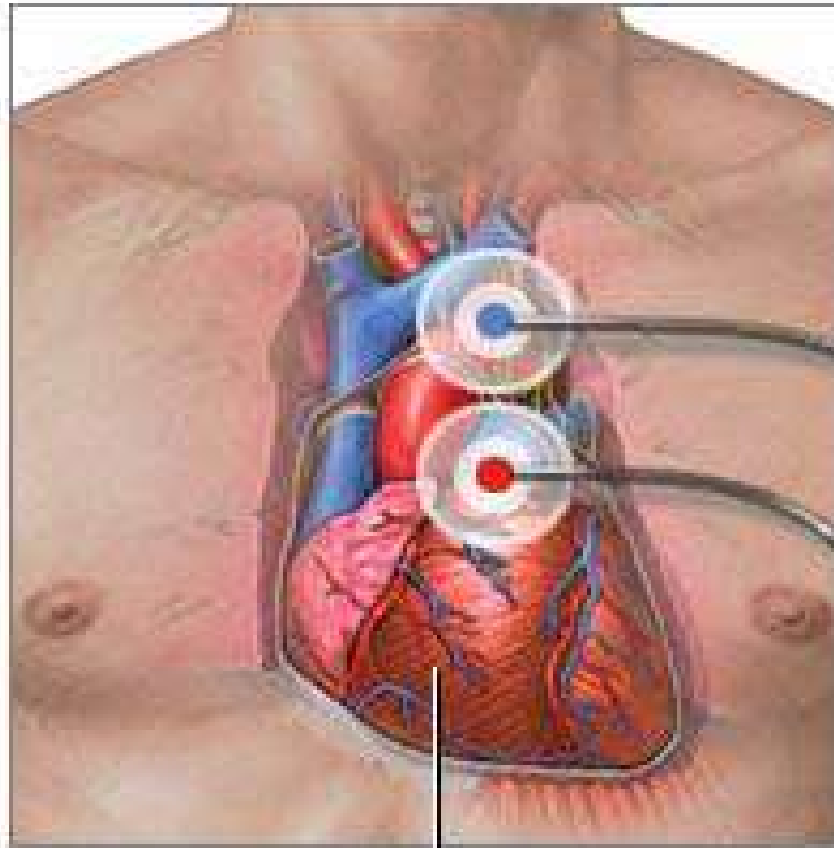
Normal heart rhythm

## Sinus bradycardia



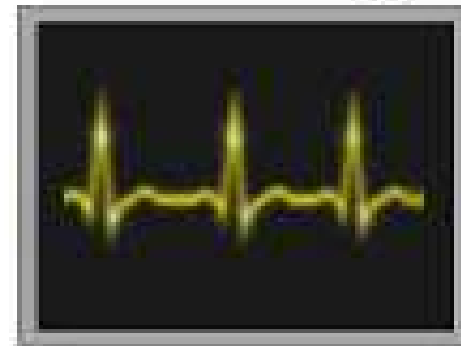
## Ventricular tachycardia



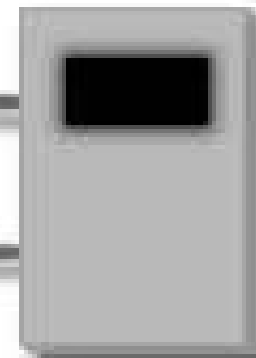


Heart

Electrocardiogram



Holter monitor



**A**

Electrodes  
inserted into  
vein leading  
to heart

Electrodes  
in heart

Implantable  
defibrillator  
inserted  
under skin

Right atrium and ventricle

**B**

Pacemaker

Electrodes  
in heart

