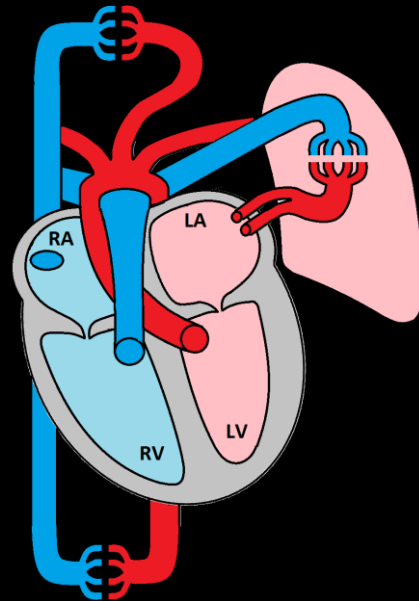


# The Electrical Conduction System

## Basic Heart Function

### Blood Circulation

- Pulmonary Blood Flow
- Systemic Blood Flow

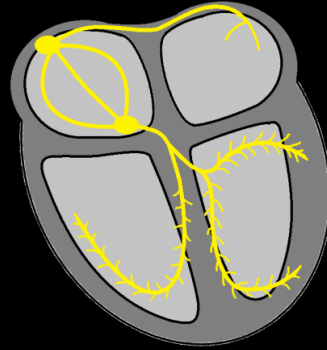


# The Electrical Conduction System

## Action Potentials of Cells

Pacemaker Cells

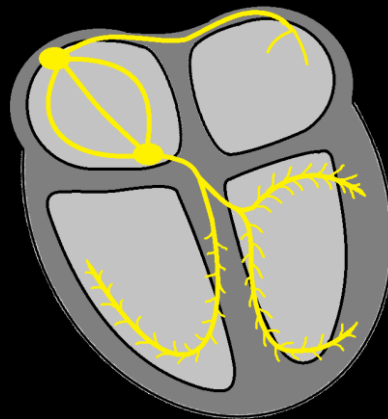
Cardiac Myocytes



# The Electrical Conduction System

## Action Potentials of Cells

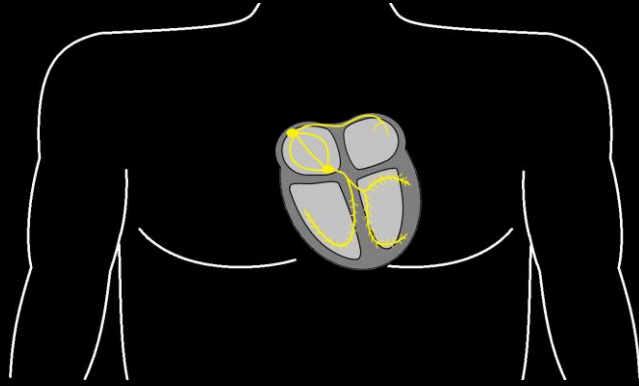
- Sinoatrial Node
- Atrioventricular Node
- Bundle of His
  - Right Bundle Branch
  - Left Bundle Branch
    - Left Anterior Fascicle
    - Left Posterior Fascicle
- Purkinje Fibers



# The ECG Tracing

## Lead Placement

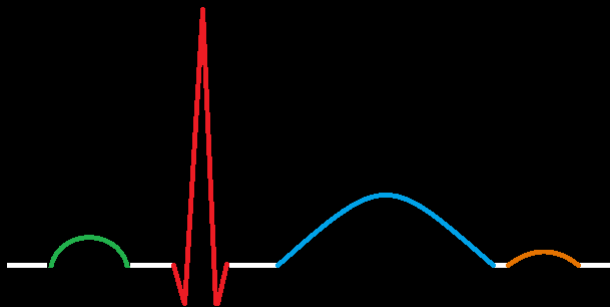
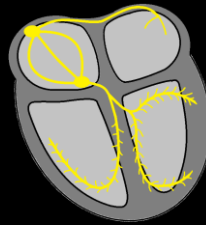
- Precordial Leads
  - V1-V6
- Augmented Leads
  - aVR, aVF & aVL
- Limb Leads
  - I, II, & III



# The ECG Tracing

## Complex Analysis

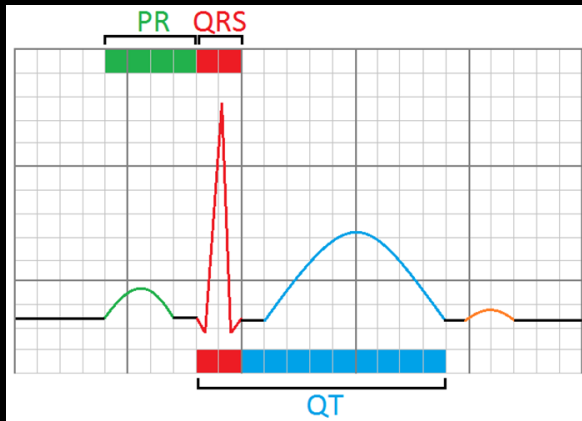
- P Wave
- QRS
- T Wave
- U Wave



# The ECG Tracing

## Complex Measurement

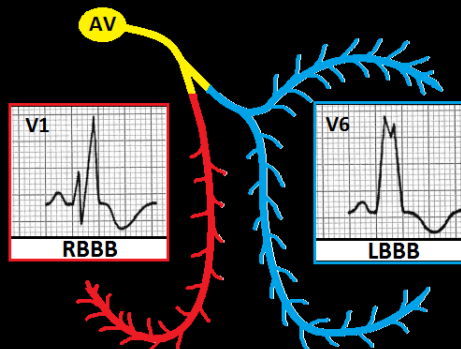
- PR = .12 - .20 sec
- QRS = .06 - .10 sec
- QT = .36 - .44 sec



# The ECG Tracing

## Complex Analysis

- Intraventricular Conduction Delay (IVCD)
  - QRS > .10 seconds
- Bundle Branch Block (BBB)
  - Right Bundle Branch Block
  - Left Bundle Branch Block
    - Anterior Fascicular Block
    - Posterior Fascicular Block



# The ECG Tracing

## Rate Calculation

- 300 Method
- 6 Second Method

