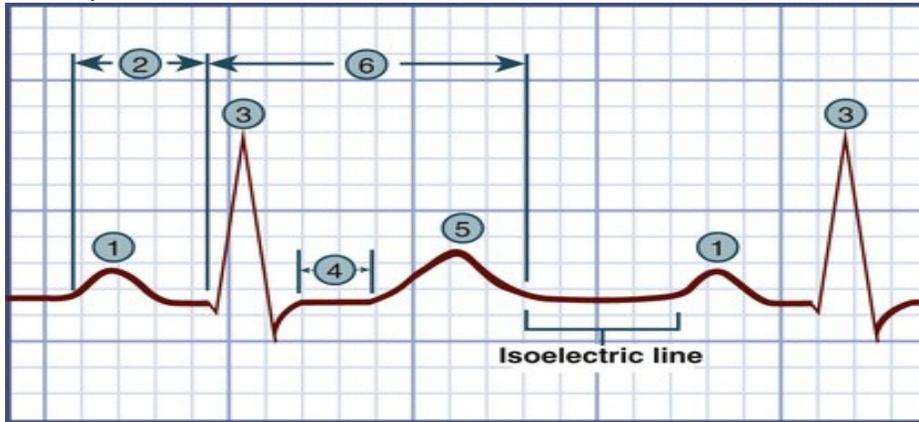


Madelyn Crabtree



1. P wave - this is the first waveform and is atrial depolarization (where atrium contracts)
  - a. Present and associated with every 'QRS'
  - b. Atrial rate - start with p wave and count 30 squares ( if 4 p waves then x 10 )
    - i. So the heartrate would be 40 = bradycardia
  - c. The P wave is represented by the SA node ("the pacemaker") beats 60-100bpm
2. PR interval - THIS STARTS AT THE BEGINNING OF THE ARTIERIAL CONTRACTION 9P-WAVE) AND ENDS BEFORE THE VENTRICLES CONTRACT (DEPOLARIZE)
  - a. if longer than normal means there is a block in the heart where the deoxygenated blood is coming in to contract : 0.12-0.20 seconds
  - b. 3-5 small boxes or 1 large box
3. ORS - ventricular depolarization - if wide means there is something going on in the ventricles i.e a blockage in the ventricles that is causing a delay in impulse for normal blood flow or normal depolarization - 0.04 - 0.10 seconds
4. ST segment - STARTS AT the upward stroke after the S wave and ends at the beginning of the T-wave
  - a. This segment is when the ventricles are relaxing (repolarizing)
5. T wave - when the ventricles relax (repolarize) the small electrical pulse is the t-wave
6. QT interval - this is the amount of time it takes for the ventricles to depolarize and repolarize meaning : the amount of time it takes for the ventricles to contract and refill with blood

6 second rule = always 30 squares and then x 10

ATRIAL DEPOLARIZATION – DEPOLARIZATION = SAME THING AS THE HEART CONTRACTING TO MOVE BLOOD THROUGH IT

QRS – VENTRICLE DEPOLARIZATION – THE VENTRICLES ARE CONTRACTING TO PUSH BLOOD THROUGH

BC THE VENTRICLES ARE SO BIG – WHEN THEY CONTRACT THEY FORM THE QRS  
SO WHEN THEY RELAX (REPOLARIZE) THEY FORM A SMALL ELECTRICAL IMPULSE THAT PRESENTS AS A T WAVE

WHICH THEN IS WHAT LEADS TO THE BLOOD BEING REOXYGENATED BY THE HEART FOR THE ARTERIES TO PUSH TO THE BODY

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### Electrical Conduction System of the Heart Explained

1<sup>st</sup>. Start is the contraction of the SA node – (p-wave)

Then travels down to the AV node

2) AV node – “gate keeper “

- It always for the right atrium to full empty into the ventricles
- AV node beats at 40-60 bpm

3) then the impulse travels through the BUNDLES OF HIS –  
which bundle out to RIGHT AND LEFT FIBERS

4) THEN THE IMPULSE GOES TO THE PURNIKJE FIBERS