

## Sinus Rhythms

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### Normal (Regular) Sinus Rhythm Characteristics

- Rhythm must originate in (SA) node
- Must follow normal pathway of conduction
- Regular atrial and ventricular rhythm
- Rate of 60-100 bpm
- One upright P wave is present before each QRS
- P waves normal in shape and uniform in appearance
- Pr interval measures 0.12 - 0.20 seconds
- QRS complex usually measures 0.10 seconds or less
- See example in syllabus.

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### Sinus Bradycardia

- SA node discharges fewer than 60 bpm
- Follows normal pathway of conduction
- Normal in some patients without cardiac compromise, ie athletes.
- If the patient is symptomatic, it will be treated.
- Symptoms include:
- Chest pain, shortness of breath, syncope, CHF,
- Hypotension, signs of shock, pulmonary congestion.
- See example in syllabus.

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### Sinus Tachycardia

- S/A node discharges more than 100 X min.
- Rhythm originates in S/A node and follows normal pathway of conduction.
- Rhythm, P waves, QRS, PR interval all normal.
- Normal in children 10 years of age and younger.
- Occurs as normal response to body's demand for increased O<sub>2</sub> due to:
- fever, pain, anxiety, hypoxia, CHF, MI, infection
- shock, hypovolemia, dehydration, exercise, fright.
- See example in syllabus.

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### Sinus Dysrhythmia (Arrhythmia)

- Normal phenomenon that occurs with respiration, and changes in intrathoracic pressure.
- The heart rate increases during inspiration (R-R intervals shorten) and decreases during expiration (R-R intervals lengthen).
- Most commonly seen in the young and elderly.
- If bradycardic rate termed sinus bradydysrhythmia.
- If tachycardic rate termed sinus tachydysrhythmia.

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