

ECG: Sinus Rhythms

• ECG
• Cardiac

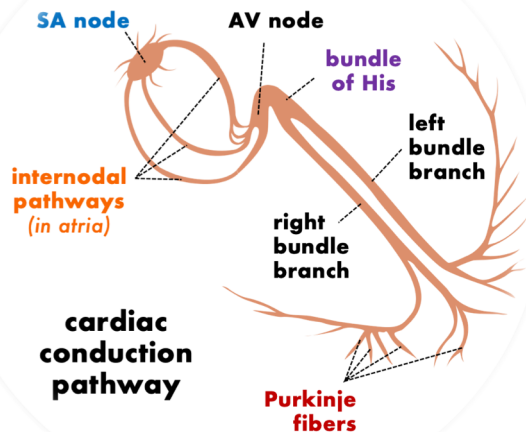
1. Identify characteristics of **SINUS** rhythms:

| | | |
|---------------------|--|--|
| Rhythm: | <input type="checkbox"/> regular | <input type="checkbox"/> irregular |
| P-wave: | <input type="checkbox"/> present & normal | <input type="checkbox"/> absent |
| PR interval: | <input type="checkbox"/> present & normal | <input type="checkbox"/> absent (no P wave = no PR interval) |
| QRS complex: | <input type="checkbox"/> narrow (less than 0.12 sec) | <input type="checkbox"/> wide & bizarre |



2. In **SINUS** rhythms, the **source** of the electrical signal (action potential) is:

- sinoatrial (SA) node
- atria
- atrioventricular (AV) node
- bundle of His
- bundle branches
- Purkinje fibers



3. This source has an **intrinsic rate** of:

- | | |
|-------------|--------------------------------------|
| a. 20 to 40 | c. 60 to 100 |
| b. 40 to 60 | d. very fast – usually well over 100 |

4. Rate determines “last name” of this rhythm. Identify **correct rate ranges** below:

| | | | | |
|--------------------------|-----------------------------------|---------------------------------------|------------------------------------|-----------------------------------|
| Sinus BRADYCARDIA | <input type="checkbox"/> 20 to 40 | <input type="checkbox"/> less than 60 | <input type="checkbox"/> 60 to 100 | <input type="checkbox"/> over 100 |
| Sinus Rhythm | <input type="checkbox"/> 20 to 40 | <input type="checkbox"/> less than 60 | <input type="checkbox"/> 60 to 100 | <input type="checkbox"/> over 100 |
| Sinus TACHYCARDIA | <input type="checkbox"/> 20 to 40 | <input type="checkbox"/> less than 60 | <input type="checkbox"/> 60 to 100 | <input type="checkbox"/> over 100 |

True or false?

- Sinus BRADYCARDIA** is only treated when it is “symptomatic” (symptoms of hemodynamic compromise related to slow heart rate).
- Appropriate treatment for **sinus TACHYCARDIA** may include relief of pain, IV fluid replacement, and/or reducing fever or anxiety.

ECG: Atrial Rhythms



1. Identify characteristics of **ATRIAL FIBRILLATION** & **ATRIAL FLUTTER**:

| | | |
|---------------------|--|--|
| Atrial Rate: | <input type="checkbox"/> very slow... | <input type="checkbox"/> very FAST! |
| Rhythm: | for A Fib : | <input type="checkbox"/> regular <input type="checkbox"/> irregular |
| | for A Flutter : | <input type="checkbox"/> regular <input type="checkbox"/> irregular <input type="checkbox"/> can be either |
| P-wave: | <input type="checkbox"/> present & normal | <input type="checkbox"/> absent |
| PR interval: | <input type="checkbox"/> present & normal | <input type="checkbox"/> absent (no P wave = no PR interval) |
| QRS complex: | <input type="checkbox"/> narrow (less than 0.12 sec) | <input type="checkbox"/> wide & bizarre |

Matching:

- | | |
|--|-------------------------------|
| _____ 2. In all ATRIAL rhythms , this is the source of the electrical signal (action potential). | a. sinoatrial (SA) node |
| _____ 3. Atrial rates can get as high as 300 (in A Flutter), even up to 600 (in A Fib); as a result, this structure blocks transmission of some electrical signals so the ventricular rate is slower. | b. atria |
| _____ 4. This structure is the reason why the QRS complexes in A Fib and A Flutter are narrow . | c. atrioventricular (AV) node |
| | d. bundle branches |
| | e. Purkinje fibers |

Write **A Fib** or **A Flutter** in correct squares below:

- | | | |
|-----|--|---|
| 5. | | Most common dysrhythmia treated in clinical practice. |
| 6. | | Most common dysrhythmia for which patients are hospitalized. |
| 7. | | Sometimes measured as 2:1, 3:1, or 4:1 conduction. |
| 8. | | Has "saw-toothed" waves. |
| 9. | | Highly unusual to have this rhythm chronically. |
| 10. | | Long-term treatment often includes taking daily anticoagulants. |

ECG: Junctional Rhythms

• ECG
• Cardiac

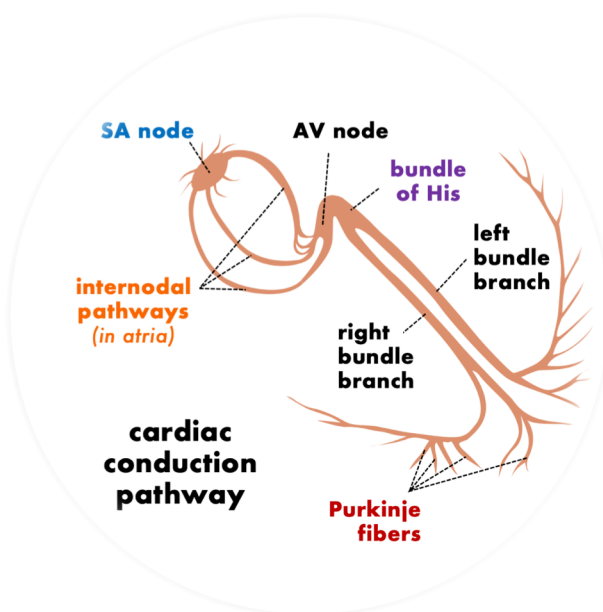


1. Identify characteristics of **JUNCTIONAL rhythms** (select all that MAY apply):

| | | |
|---------------------|---|--|
| Rhythm: | <input type="checkbox"/> regular | <input type="checkbox"/> irregular |
| P-wave: | <input type="checkbox"/> present, but inverted (in leads II, III, aVF) | <input type="checkbox"/> absent |
| PR interval: | <input type="checkbox"/> present, but shortened | <input type="checkbox"/> absent (no P wave = no PR interval) |
| QRS complex: | <input type="checkbox"/> narrow (less than 0.12 sec) | <input type="checkbox"/> wide & bizarre |

2. The **AV junction** is made up of two parts: _____ and _____.

3. True or False? The **AV node** does NOT contain pacemaker cells.



4. In **JUNCTIONAL rhythms**, the **source** of the electrical signal (action potential) is:

- a. sinoatrial (SA) node
- b. atria
- c. atrioventricular (AV) node
- d. bundle of His
- e. bundle branches
- f. Purkinje fibers

5. This source has an **intrinsic rate** of:

- a. 20 to 40
- b. 40 to 60
- c. 60 to 100
- d. very fast – usually well over 100

6. Rate determines “full name” of this rhythm. Identify **correct rate ranges** below:

| | | | | |
|--------------------------------------|-----------------------------------|------------------------------------|------------------------------------|-----------------------------------|
| Junctional Escape Rhythm | <input type="checkbox"/> 20 to 40 | <input type="checkbox"/> 40 to 60 | <input type="checkbox"/> 60 to 100 | <input type="checkbox"/> over 100 |
| ACCELERATED Junctional Rhythm | <input type="checkbox"/> 20 to 40 | <input type="checkbox"/> 41 to 100 | <input type="checkbox"/> 61 to 100 | <input type="checkbox"/> over 100 |
| Junctional TACHYCARDIA | <input type="checkbox"/> 20 to 40 | <input type="checkbox"/> 41 to 100 | <input type="checkbox"/> 61 to 100 | <input type="checkbox"/> over 100 |