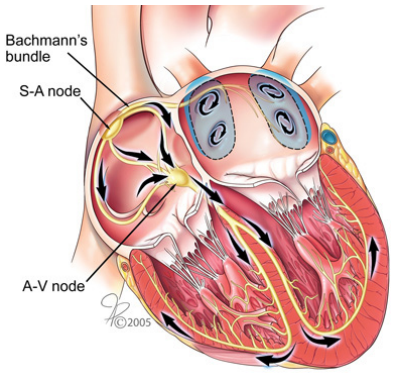
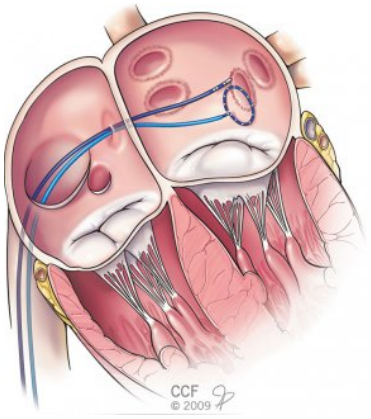
Anesthesia Tip Sheet for Electrophysiology Studies and Ablations

**Atrial fibrillation**

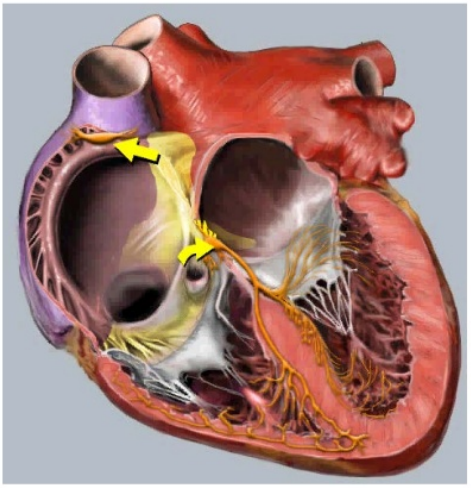
- Most common ablation in adults
- Anesthesia: GETA, paralytics for induction only, avoid lidocaine and beta-blockers
- Monitors: place second IV, post-induction arterial line (not for Bhardwaj), esophageal temperature probe
- Procedural access: venous access obtained bilaterally; trans-septal access performed and pulmonary veins sequentially isolated
- May be followed by electrophysiology study or a-flutter ablation
- Complications:
  - Stroke
    - Pre-procedure TEE to evaluate for LAA clot
    - Heparin bolus/drip, ACT every 15 minutes
  - Esophageal injury (temperature probe)
  - Phrenic nerve injury (no paralytics)
  - Cardiac Tamponade (notify proceduralist if BP drops)
- For cases requiring the esophageal diverter, please notify your attending so they can be present for placement

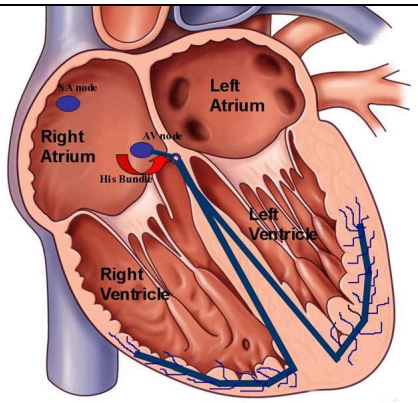
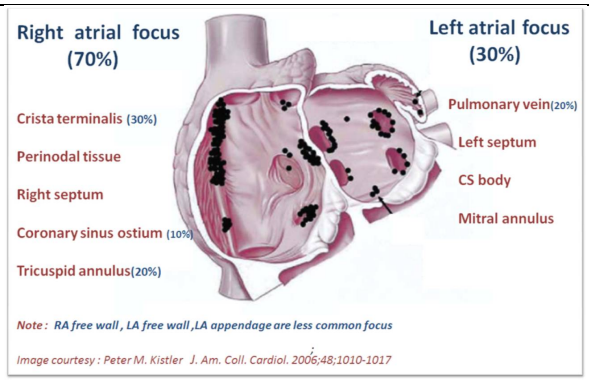
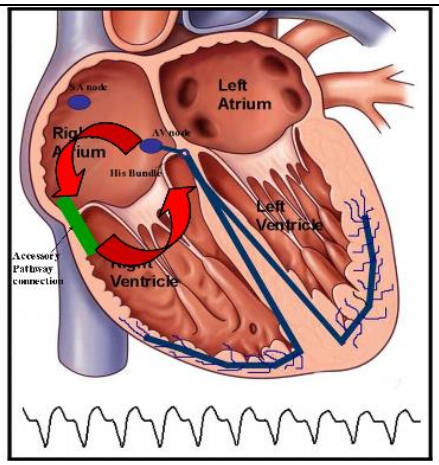



**Atrial flutter**

- Anesthesia: moderate or deep sedation (GETA for pediatrics)
- Monitors: consider arterial line if left sided, avoid lidocaine and beta-blockers
- Procedural access: venous access bilaterally
- Complications:
  - Stroke
    - Heparin bolus/drip for trans-septal access, ACT every 15 min
    - TEE sometimes required
  - Tamponade



| AV nodal re-entry tachycardia | |
|---|---|
| • Anesthesia: moderate or deep sedation (GETA for pediatrics), avoid lidocaine and beta-blockers<br>• Monitors: arterial line typically not required<br>• Procedural access: venous access bilaterally<br>• Complications:<br>  ○ AV block (Patient cannot move during ablation!) |  |
| **Atrial tachycardia** | |
| • Anesthesia: moderate or deep sedation (GETA for pediatrics), avoid lidocaine and beta-blockers<br>  ○ Non-inducibility may be an issue<br>• Monitors: arterial line not usually necessary<br>• Procedural access: venous access bilaterally<br>• Complications:<br>  ○ Tamponade |  |
| **Accessory Pathway** | |
| • More common in the pediatric population<br>• Anesthesia: moderate or deep sedation (GETA for pediatrics), avoid lidocaine and beta-blockers<br>• Monitoring: arterial line for left sided lesions<br>• Procedural access: venous access bilaterally<br>• Complications:<br>  ○ Tamponade<br>  ○ May be close to AV node and cause AV block |  |

| **PVC** | |
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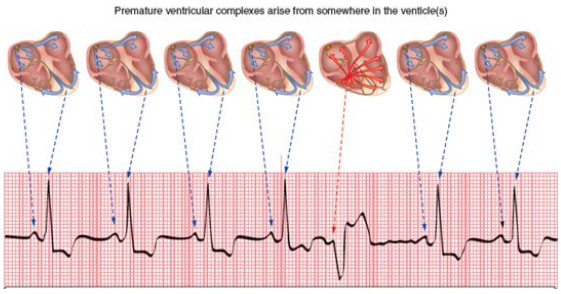
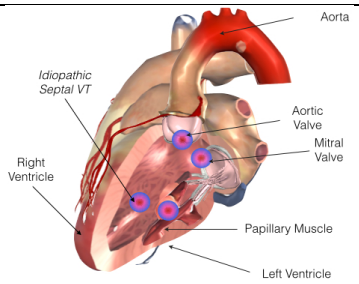
| • More common in adult patients<br>• <u>Anesthesia:</u> moderate or deep sedation (GETA for pediatrics), avoid lidocaine and beta-blockers<br>• <u>Procedural access:</u> arterial line and venous access bilaterally<br>• <u>Complications:</u><br>  ○ Tamponade<br>  ○ Coronary artery injury |  |
| **VT – endocardial and epicardial** | |
| • More common in adults<br>• Anesthesia: may try to induce VT with sedation (unless already in VT), but typically requires GETA, avoid lidocaine and beta-blockers<br>• Monitors: pre-induction arterial line<br>• Procedural access: groin arterial line and venous access bilaterally<br>• Complications:<br>  ○ Tamponade<br>  ○ Hemodynamic Collapse |  <br>*Typical locations include the **Left Ventricular Outflow Tract** (just under the aortic valve), in the **Aortic Valve**, around the **Mitral Valve**, in the **Papillary Muscles** and on the septum dividing the left and right Ventricles (Idiopathic Septal VT)."* |