

1 **SEPTAL DEFECTS**

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2 **Types of Defects**

- Atrial
- Atrioventricular
- Ventricular

3 **Atrial Septal Defects (ASD)**

- Secundum defects
- Primum defects
- Sinus venosus
- Coronary sinus

4 **Atrial Septal Defects**

**Sonographic Findings**

- May be difficult to visualize
- Four Chamber view
  - Foramen Ovale
  - Use a perpendicular approach to best visualize the septum
- Color flow
  - Can be difficult because of the normal foramen ovale
- M-mode can also be a reliable documenting tool

5 **Atrioventricular Septal Defects (AVSD)**

- Interatrial septum
- Interventricular septum
- Atrioventricular Valves
  - Mitral
  - Tricuspid
- Endocardial cushions of the heart fail to fuse

6 **Atrioventricular Septal Defects**

- Complete
  - Large septal defect (atrial and ventricular)
  - Common atrioventricular valve
- Partial
  - AV valves separate
    - Cleft of leaflets often present
  - Septal defects noted (atrial and ventricular)
- Intermediate
  - Least common
  - Similar to complete AVSD findings
  - CAV valve stuck to ventricular septum
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7 **Atrioventricular Septal Defects**

**Sonographic Findings**

- Four Chamber View

- Short Axis Plane
- Color Doppler
- M-mode
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#### 8 **Ventricular Septal Defects (VSD)**

- Membranous
  - Towards base of heart
- Muscular
  - Inlet
    - AVSD
    - Most common
  - Outlet
    - Superior portion of muscular IVS
  - Trabecular
    - Mid portion of septum
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#### 9 **Ventricular Septal Defects Sonographic Findings**

- 4chamber
  - Perpendicular
- Long Axis of LVOT
- Long Axis of RVOT
- Short Axis
  - Sweep from apex to base

#### 10 **Summary**

- Atrial Septal Defect
- Atrioventricular Septal Defects
- Ventricular Septal Defects
- Imaging Planes
  - Multiple orthogonal planes
  - Gray scale imaging
  - Color Doppler
  - Pulsed Wave Doppler
  - M-Mode