



An Interactive Learning Experience: Revalidation of Clinical Skills for AT Professionals & AT Educators

Cardiac Auscultation

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Disclosure Slide

- No conflicts of interest
- No relevant financial relationships

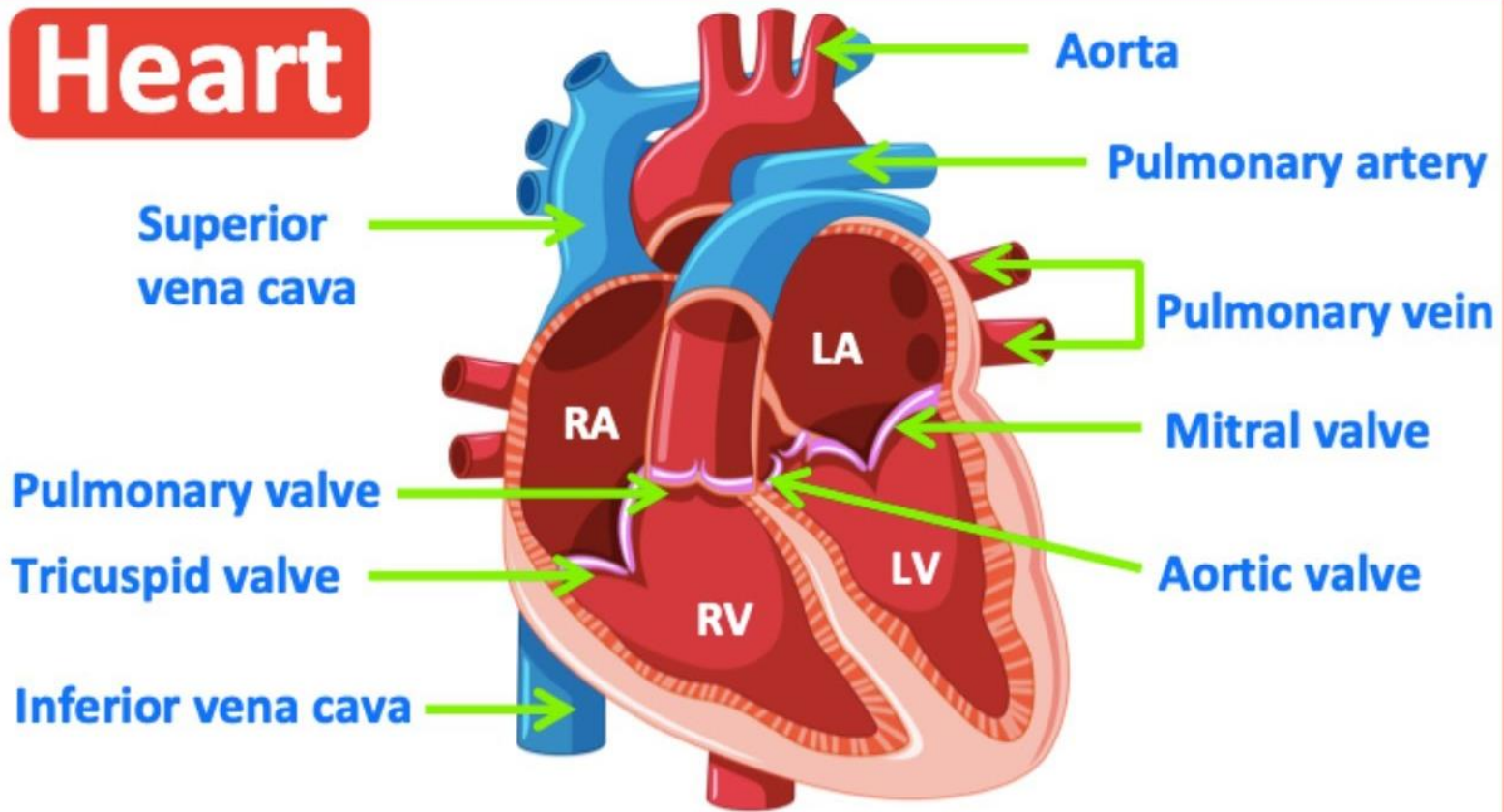


Learning Objectives

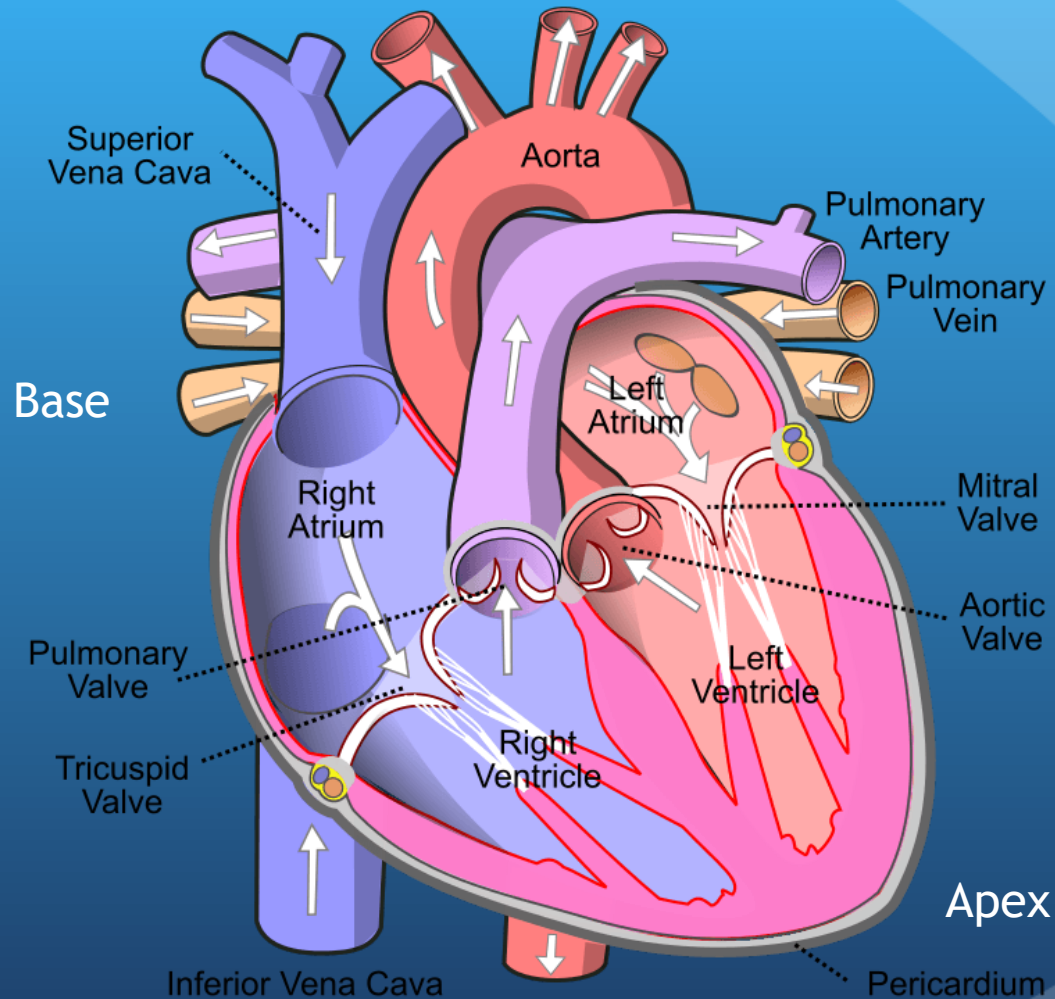
- At the end of the session, the participant will be able to:
 - Demonstrate site proficiency for cardiac auscultation
 - Identify normal heart sounds
 - Recognize basic heart murmurs

Anatomy of the Heart: 4 Chambers and 4 Valves

Heart

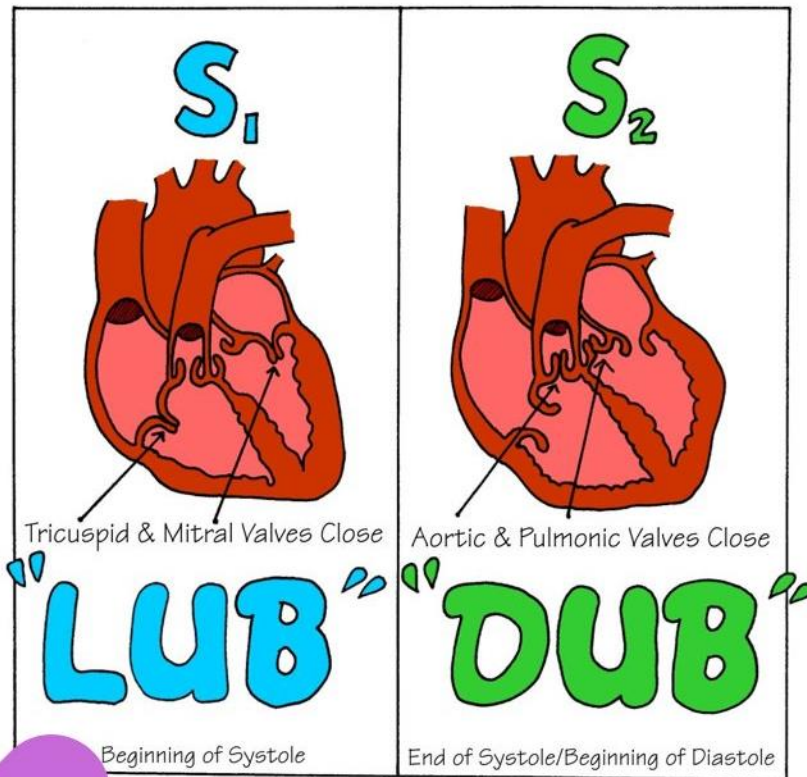


Blood Flow in the Heart



S1 and S2

Cardiac Auscultation



Basic Heart Sounds:

**S1 (First heart sound)
"Lubb"**

- Closure of AV Valves
- Beginning of ventricular systole
- Loudest at the apex and lower left sternal border
- Longer than S2
- Carotid pulse

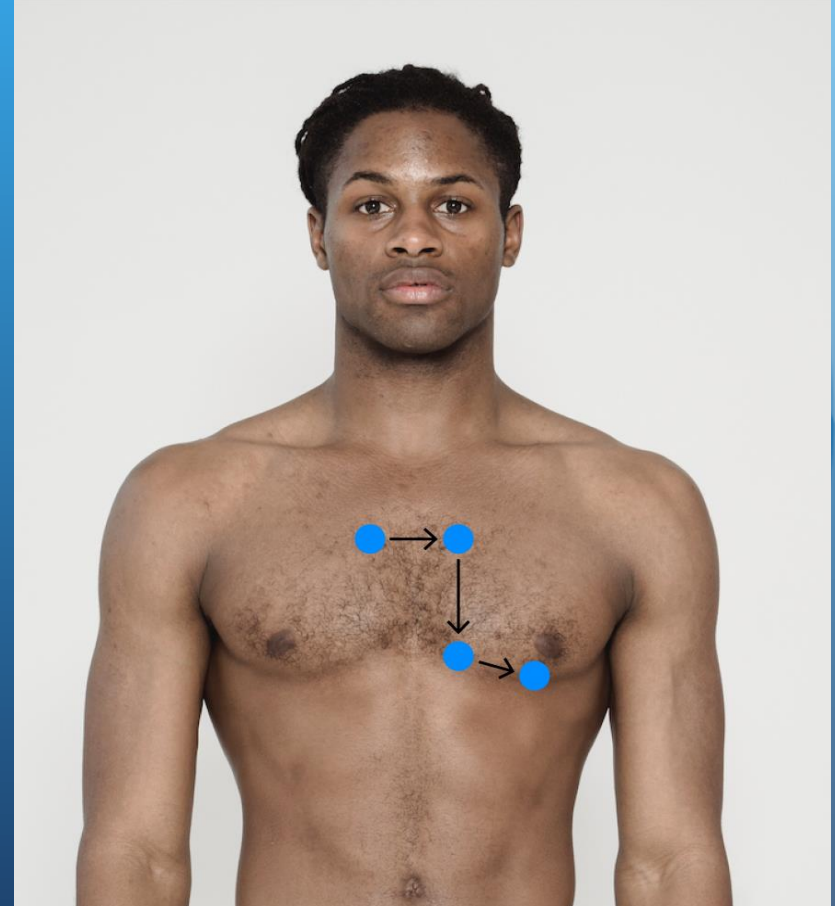
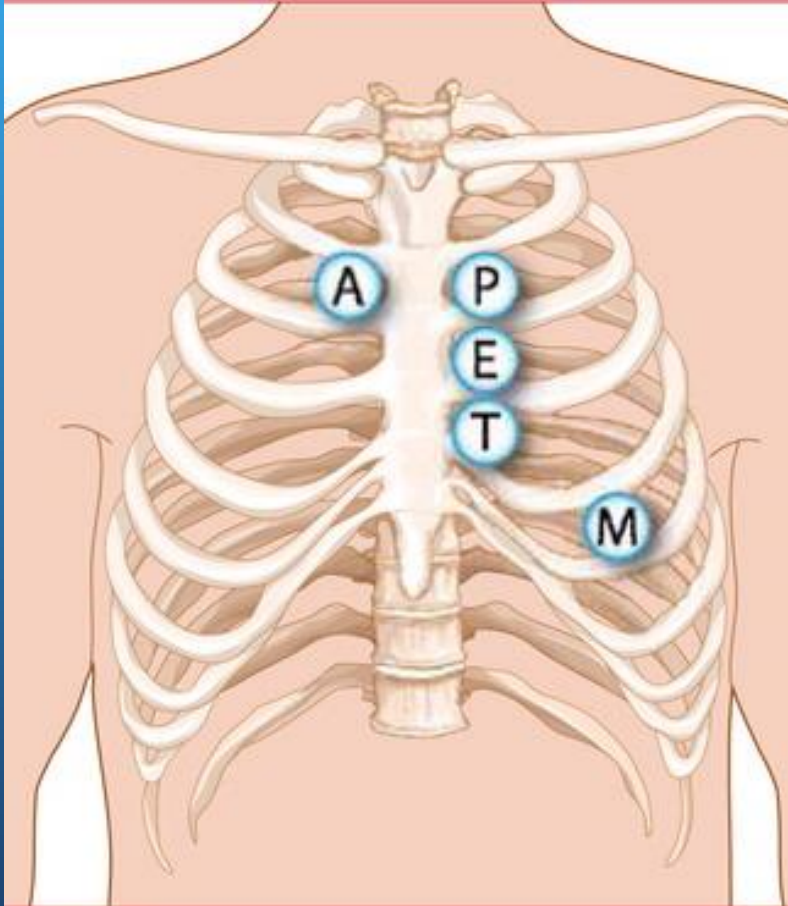
**S2 (Second heart sound)
"Dubb"**

- Closure of SL Valves
- End of ventricular systole
- Loudest at the base of the heart

5 Sites for Auscultation

“APT. M 2245”

“All Patients Eat & Take Medicine”



Ausculatory

Nursecepts.com

Landmarks

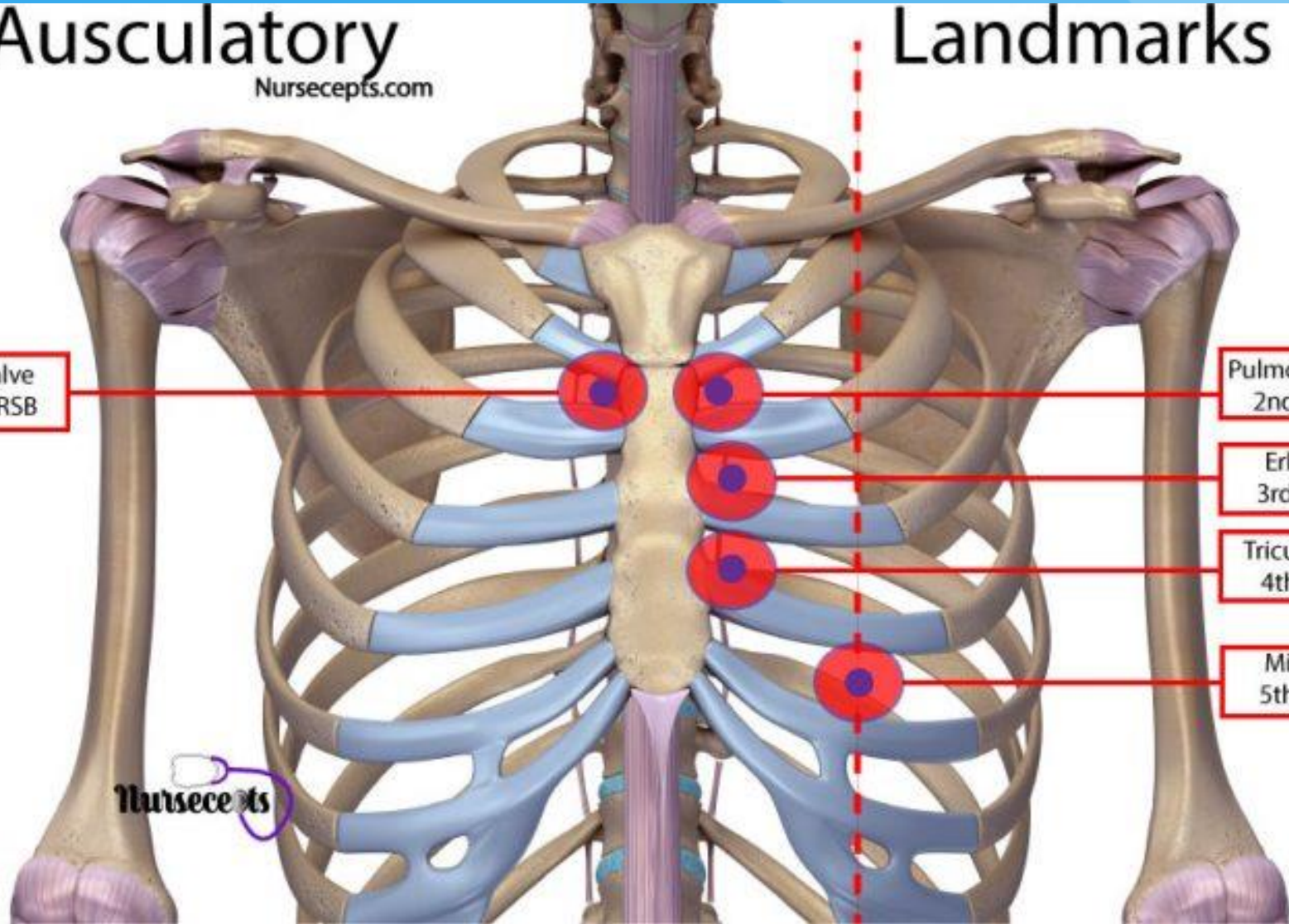
Aortic Valve
2nd ICS, RSB

Pulmonary Valve
2nd ICS, LSB

Erb's Point
3rd ICS, LSB

Tricuspid Valve
4th ICS, LSB

Mitral Valve
5th ICS, MCL

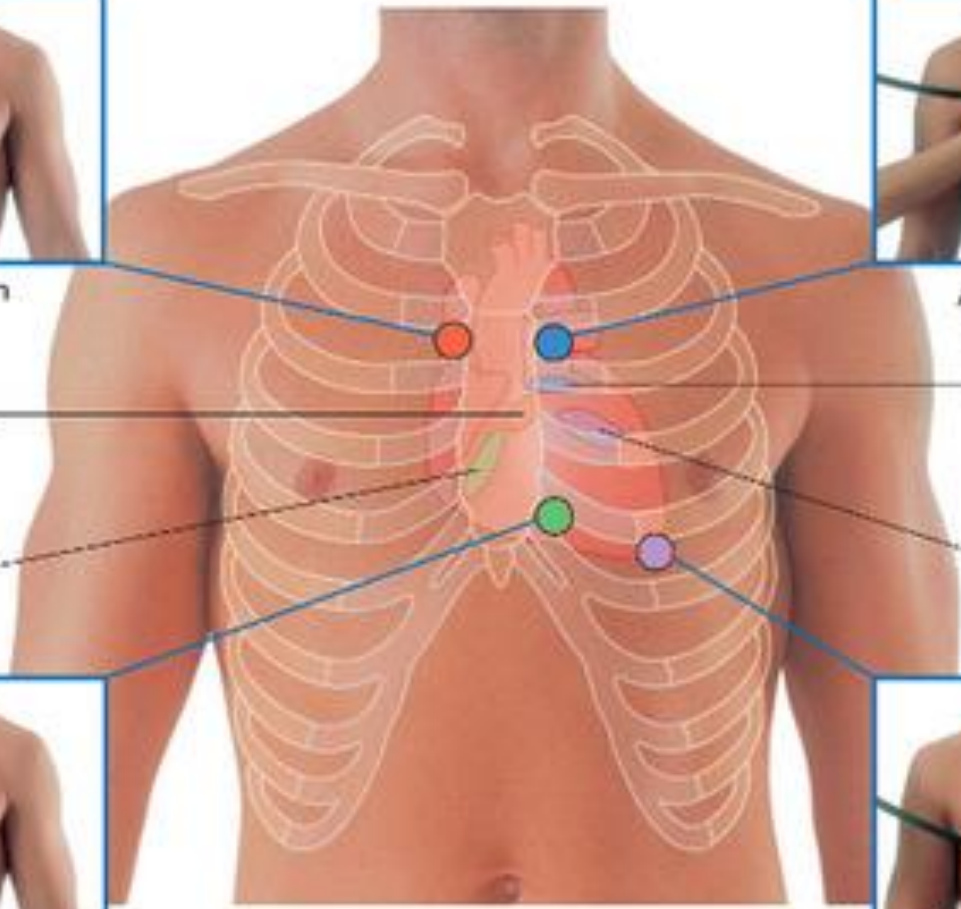




Auscultation position for aortic valve



Auscultation position for pulmonary valve



Aortic valve

Pulmonary valve

Tricuspid valve

Mitral valve



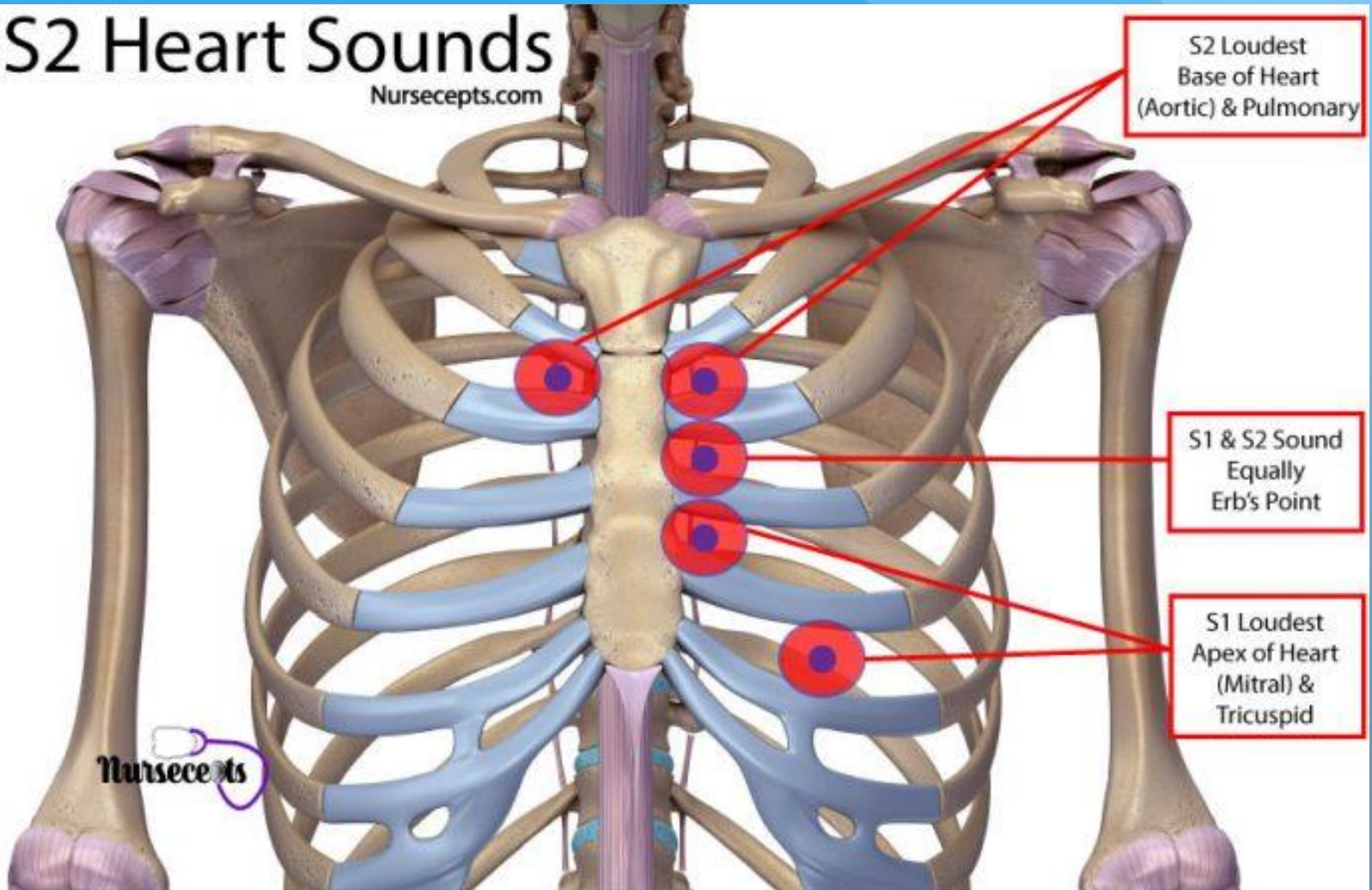
Auscultation position for tricuspid valve



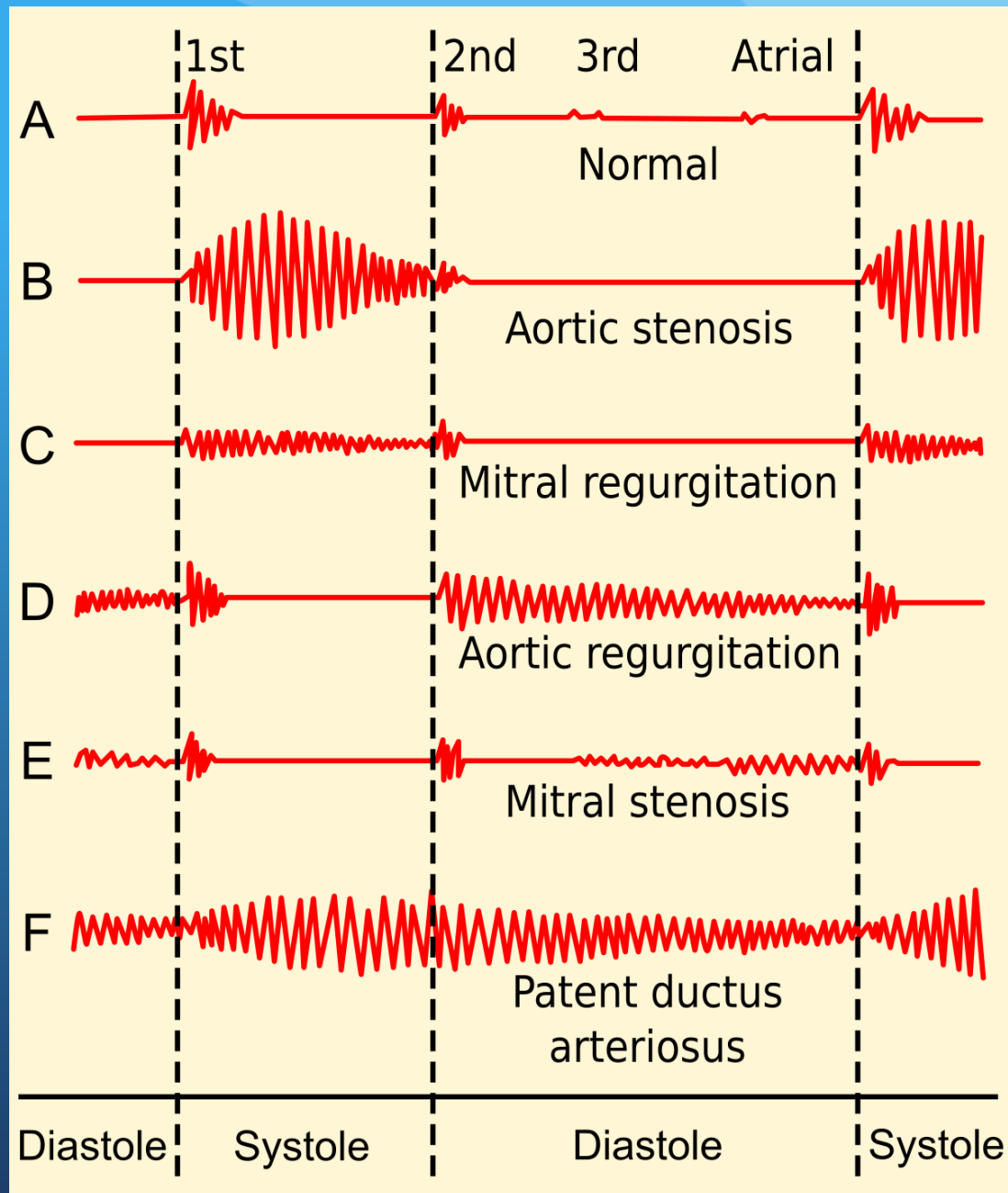
Auscultation position for mitral valve

S1 & S2 Heart Sounds

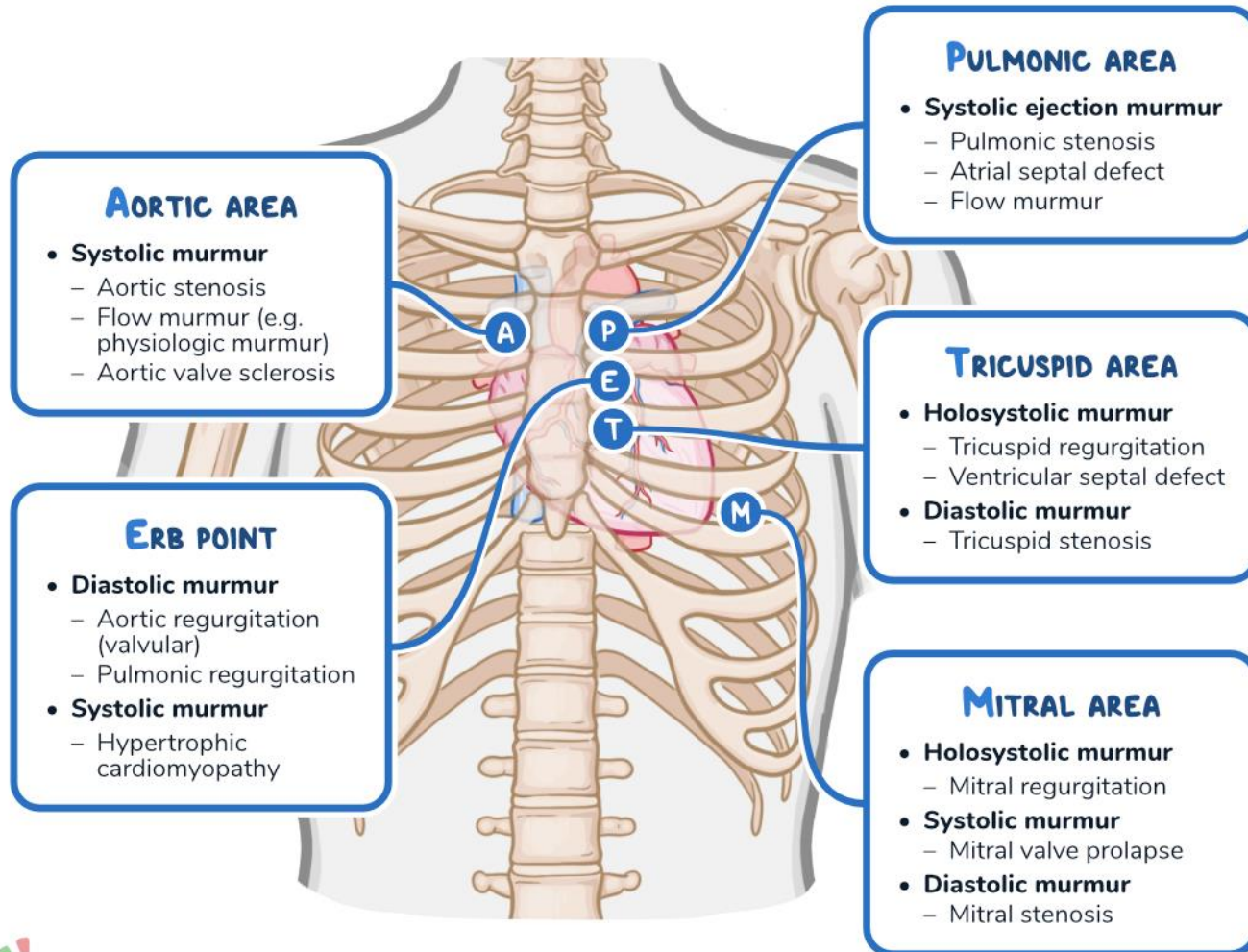
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Heart Murmurs

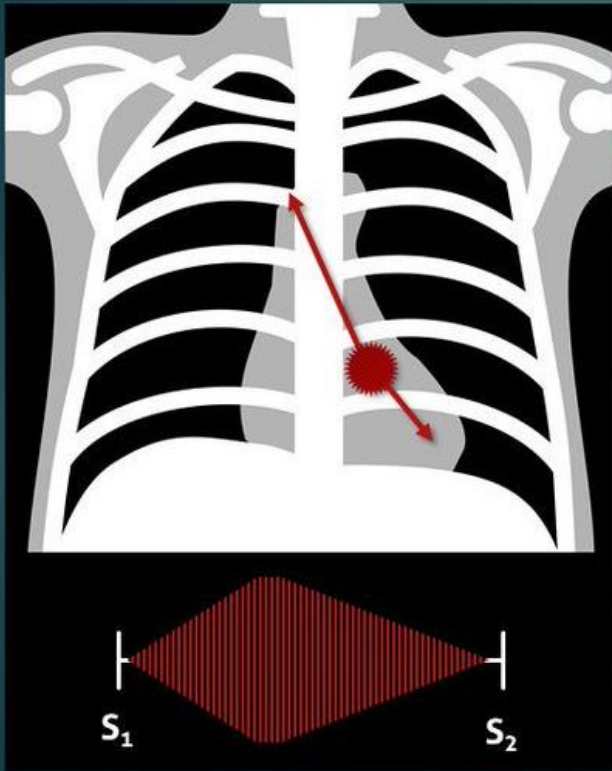


HEART MURMURS



Hypertrophic Obstructive Cardiomyopathy

Heart Murmur



Checklist

- Occurs during **systole**
- **Crescendo-decrescendo** murmur
- Heard best → **left lower sternal border**
- Radiates → **aortic/mitral areas**
- **Increase intensity: reductions in afterload and venous return**
(standing, Valsalva manoeuvre, dehydration)
- **Decrease intensity: elevations in afterload and venous return**
(squatting, leg elevation, handgrip)

References

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