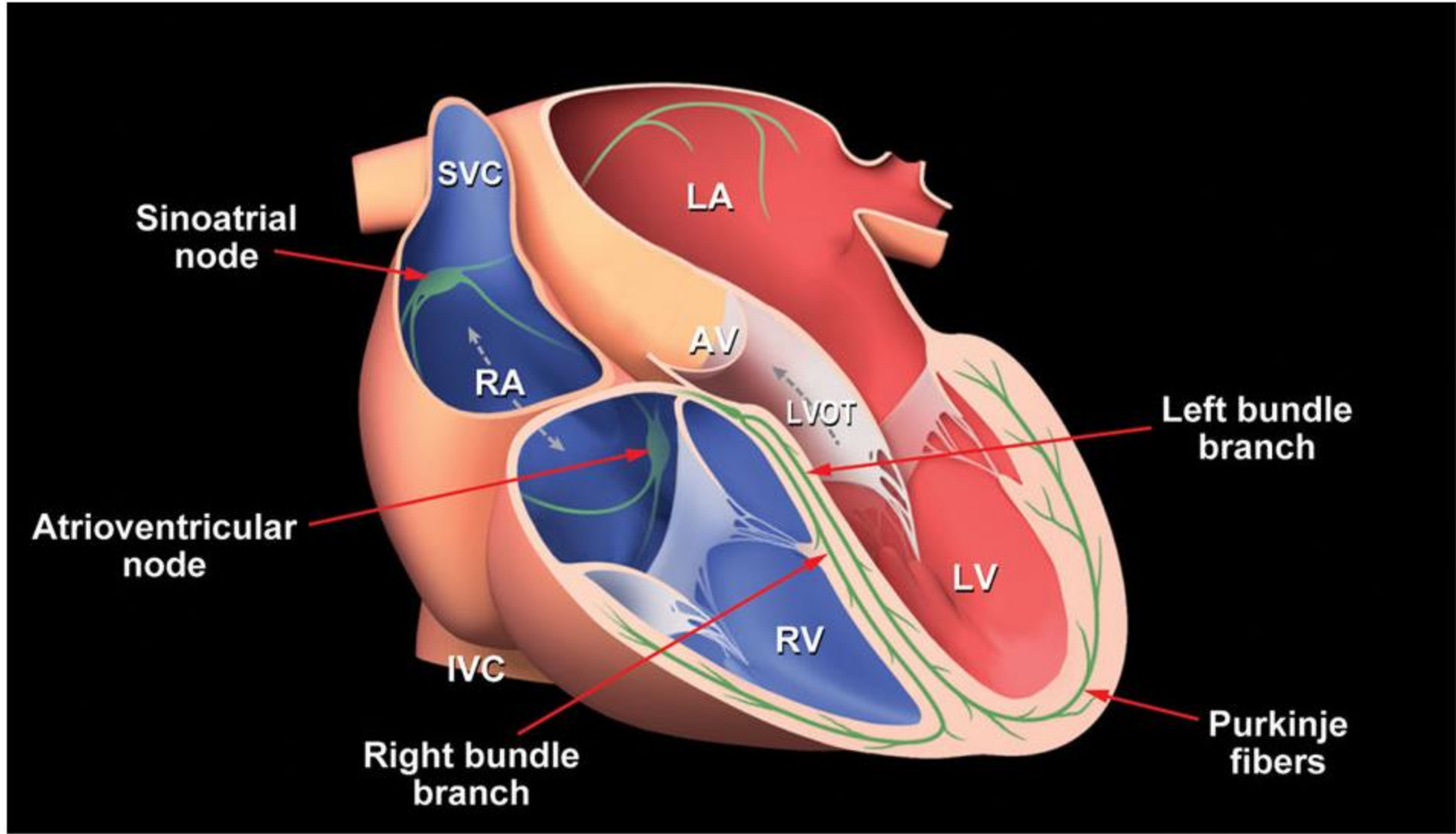


# Cardiac Anatomy Primer

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# Cardiac Anatomy

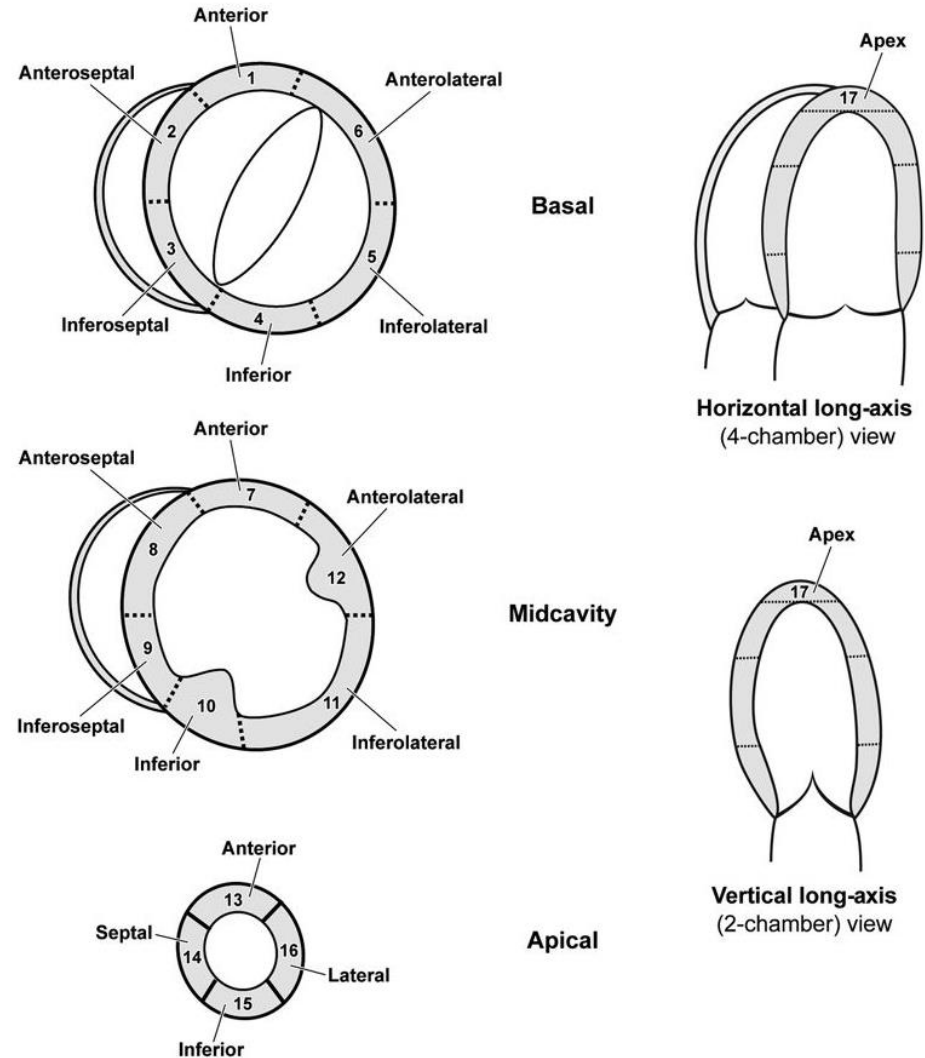
- Heart consists of two atria and two ventricles
- Atria collect blood and pump into the ventricles
- Right side of the heart is a low pressure, venous return of the cardiovascular system
  - Characterized by thin myocardium
- Left side of the heart is systemic arterial output of the entire body, thus left ventricle has thicker myocardium
- Right ventricle is the most anterior cardiac structure



**Figure 2.1** Schematic representation of the heart in cross-section showing the 4 chambers and the conduction system that regulates the function of the heart throughout the cardiac cycle. AV indicates aortic valve; IVC, inferior vena cava; LA, left atrium; LV, left ventricle; LVOT, left ventricular outflow tract; RA, right atrium; RV, right ventricle; SVC, superior vena cava.

# 17-segment model

- Standardized language across modalities
- Basal, Midcavity, and apical define the location along the long axis of the ventricle from the base to the apex



**Figure 2.2** American Heart Association–recommended 17-segment model for standardized segmentation and description of the left ventricle. (Adapted from Cerqueira MD, Weissman NJ, Dilsizian V, Jacobs AK, Kaul S, Laskey WK, et al; American Heart Association Writing Group on Myocardial Segmentation and Registration for Cardiac Imaging. Standardized myocardial segmentation and nomenclature for tomographic imaging of the heart: a statement for healthcare professionals from the Cardiac Imaging Committee of the Council on Clinical Cardiology of the American Heart Association. *Circulation*. 2002 Jan 29;105[4]:539–42. Used with permission.)

