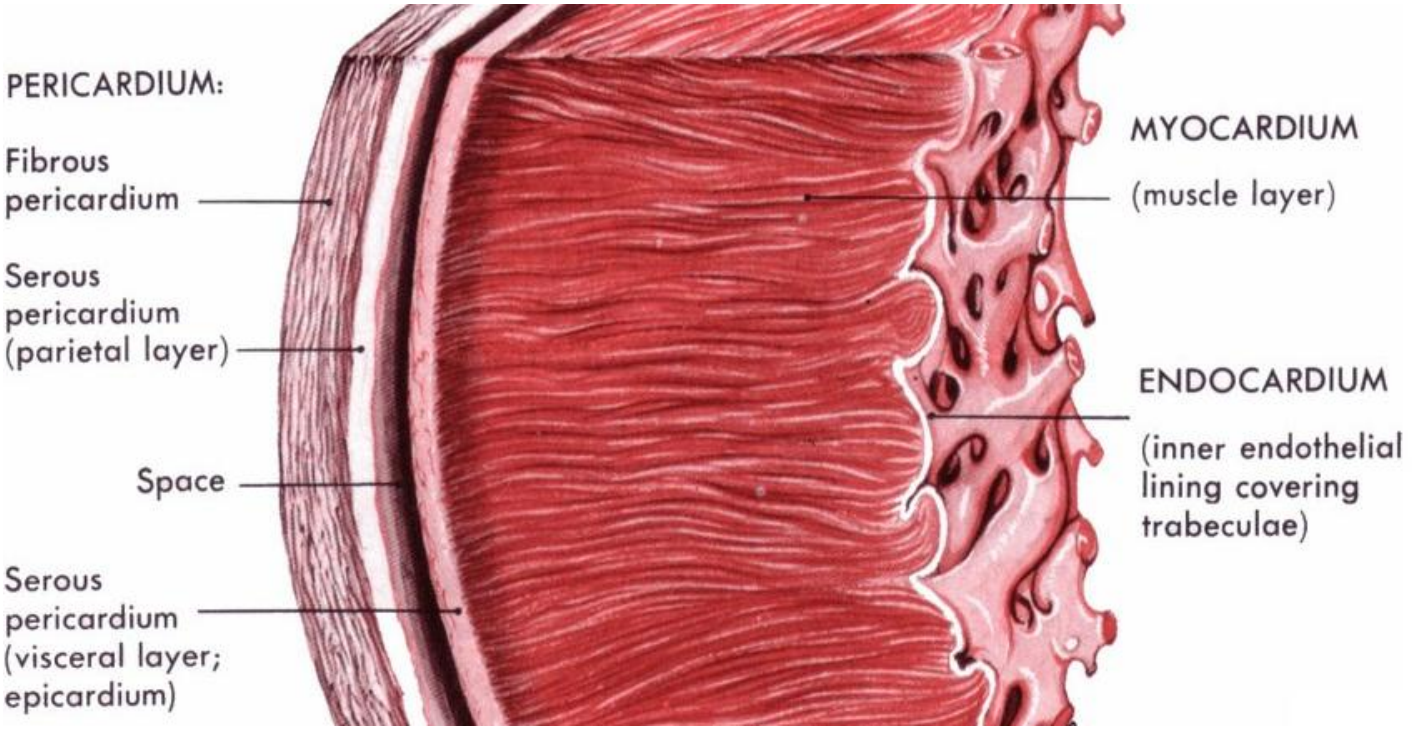
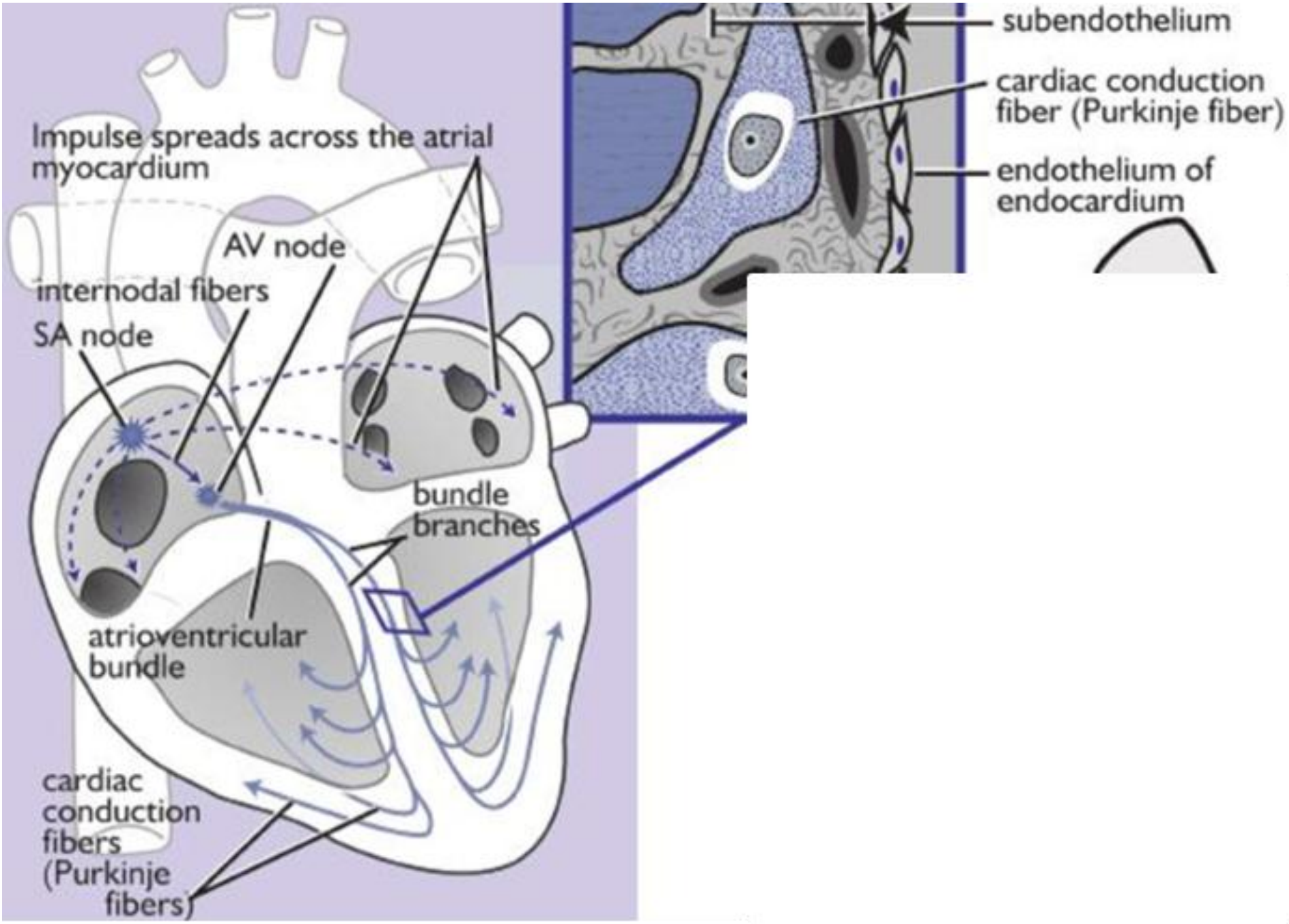
Heart

- The heart has three histologic layers:
  a) **Endocardium** is the inner layer of endothelium and connective tissue.
  b) **Myocardium** is thick cardiac muscle.
  c) **Epicardium** is the outer layer of mesothelial cells and connective tissue.
- The pericardium, comprised of mesothelial layers and connective tissue, covers the heart and contains pericardial fluid within the pericardial cavity.



- **Atrioventricular bundle (bundle of His): is** a bundle of cardiac conduction fibres extends from the atrioventricular node through the subendocardium.
- **Cardiac conduction fibres (Purkinje fibers)** are wider and shorter than cardiac myocytes.
- Heart valves are formed by folds of endocardium.
- The base of the heart is supported by a cardiac skeleton of dense irregular connective tissue which sometimes includes cartilage or bone..
- Fibrocartilage is often present in the cardiac skeleton of dogs, while hyaline cartilage is typical in horses. Bone is present in this area in ruminants.


Impulse spreads across the atrial myocardium
AV node
internodal fibers
SA node
bundle branches
atrioventricular bundle
cardiac conduction fibers (Purkinje fibers)
subendothelium
cardiac conduction fiber (Purkinje fiber)
endothelium of endocardium

Pericardium

- The heart is surrounded by a dense connective tissue and epithelial covering called the pericardium.
- The pericardial cavity separates the parietal and visceral layers of the pericardium, and contains a small quantity of pericardial fluid.
- The visceral serous pericardium (epicardium) represents the outer layer of the heart wall and is continuous at the base of the heart with the parietal serous pericardium on the inner surface of the pericardial sac.