Objectives

To introduce the heart
- amazing facts
- functions
- gross anatomy

Amazing Facts

Most featured human organ in literature!
Approximately fist shaped.
2/3rds of its mass is towards the left of midline.
Apex points to the left hip.
1/20 of the blood supply used to nourish the heart.
Heart pumps 2000 gallons of blood per day.
Cardiac muscle is myogenic.

Introduction to the Heart

Anatomy & Location
→ in the mediastinum (medial to lungs)
Function: To pump the blood through the circulatory system.
A double pump system.
- Pulmonary
- Systemic

Coverings

I. Pericardium
   A. Fibrous
   B. Serous
      i. Parietal
      ii. Visceral

II. Pericardial Cavity
   - space between parietal and visceral layers to reduce friction.

Layers of the Heart

I. Epicardium (outer)
II. Myocardium (major)
III. Endocardium (inner)
Chambers of the Heart

Atria = “entryway”
- Receive vessels flowing into H.
- Thinner walled – less muscular

Ventricles = “underside”
- Vessels flow out of H.
- More muscular (left 3x’s thicker than right)

Atrioventricular groove separates the atria from the ventricles. (Externally)

Atria separated by interatrial septum
Ventricles separated by interventricular septum

Know your Valves

Between chambers:
- Tricuspid (Right)
- Mitral (Left)

Semi-lunar:
- Pulmonary
- Aortic

Flow of Blood through the Heart
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> Right Atrium
  > Tricuspid valve
  > R. ventricle
  > Pulmonary, semi-lunar valve
  > Pulmonary arteries
  > Lungs

> Pulmonary veins
  > Left atrium
  > Bicuspid valve
  > Left ventricle
  > Aortic semi-lunar valve
  > Aorta

(e) Frontal section