Heart Dissection Lab

Bio 250
Blood returning to the heart fills atria, pulling pressure against atrioventricular valves; atrioventricular valves forced open

As ventricles fill, atrioventricular valve flaps hang limply into ventricles

Area contracts, forcing additional blood into ventricles

Direction of blood flow

Atrium

Cusp of atrioventricular valve

Chordae tendineae

Papillary muscle

Atrioventricular valve open

Anterior

Myocardium

Tricuspid valve (right atrioventricular)

Bicuspid valve (left atrioventricular)

Pulmonary semilunar valve

Aortic semilunar valve

Fibrous skeleton

Pulmonary valve

Aortic valve

Area of cutaway

Bicuspid valve

Tricuspid valve

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(b) Copyright © 2002 Pearson Education, Inc., publishing as Benjamin Cummings.
(b) Ventricles contract, forcing blood against atrioventricular valve cusps.

Atrioventricular valves close.

Papillary muscles contract and chordae tendineae tighten, preventing valve flaps from overlying into atria.

As ventricles contract and intraventricular pressure rises, blood is pushed up against semilunar valves, forcing them open.

(a)

Aorta

Pulmonary artery

Semilunar valve open
As ventricles relax and intraventricular pressure falls, blood flows back from arteries, filling the cusps of semilunar valves and forcing them to close.

Semilunar valve closed

(b)

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