

STUDY GUIDE FOR CHAPTER 11, part 1

IMPORTANT: Please also study the several class handouts and the summary on page 350 (both columns) and 351 (left column only).

The exam will also include review material on the blood, endocrines, digestive system, and ear.

Artery - a blood vessel leading away from the heart.

Vein - a blood vessel leading back toward the heart.

Portal system - a vein and its tributaries leading into an organ other than the heart.

Atrioventricular valves - the **tricuspid valve** between the right atrium and ventricle and the **bicuspid valve** between the left atrium and ventricle.

Atrium - a heart chamber that pumps blood into one of the ventricles.

Ventricle - a heart chamber that pumps the blood forcefully out of the heart.

Capillary - a thin-walled blood vessel, with a wall only one cell thick, allowing maximum exchange of materials (including nutrients, gases, and wastes) between the blood and surrounding tissues.

Cardiac cycle - the sequence of events described on pages 321-322 and illustrated at the top of p. 322.

Stroke volume - volume of blood pumped by each ventricle during one contraction stroke.

Heart rate - the number of contractions (beats_) per minute.

Cardiac output - The volume of blood pumped in each minute, equal to heart rate times stroke volume.

Layers of heart tissue - Pericardium - the outermost, connective tissue layer.

Myocardium - the thickest layer, consisting of cardiac muscle tissue.

Endocardium - the innermost layer, an epithelium.

Systole - the state of maximum contraction of a heart chamber.

Diastole - the relaxation of a heart chamber.

Pulmonary circulation - the circulation to and from the lungs.

Systemic circulation - the general body circulation, meaning everything except the pulmonary circulation.

Semilunar valves - valves shaped like hemispheres or half-moons at the base of the exits from the heart.

Sinoatrial node - the "pacemaker" on the surface of the right atrium where the heart's rhythm is generated.

Atrioventricular (AV) node - a center from which contraction impulses radiate to the left atrium and both ventricles via the **bundle of His**, which breaks up into individual **Purkinje fibers**.