

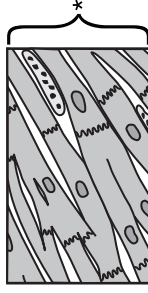


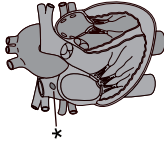
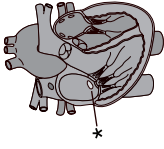

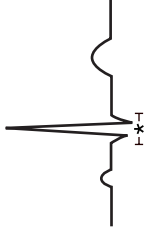
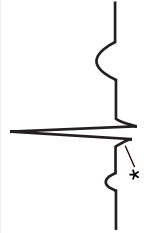
Cardiovascular Component Bingo Choice Sheet

Cardiovascular Component	Description/Function	Related Figures or Diagrams
Arteries	Blood vessels that carry blood away from the heart	
Veins	Blood vessels that return blood to the heart.	
Septum	Divides the heart into the left and right halves.	
Atrium	This area receives blood returning to the heart from the blood vessels.	
Ventricle	Pumps blood out of the heart to the blood vessels.	
Pulmonary Artery	Carries blood from the right side of the heart to the lungs where it is oxygenated .	
Pulmonary Vein	Vessel that carries well-oxygenated blood from the lung to the left atrium of the heart.	
Pulmonary Circulation	The collection of all the blood vessels from the right ventricle to the lungs and back to the left atrium.	
Left Atrium	Chamber of the heart that receives blood from the lungs, contains the bicuspid (mitral) valve.	
Left Ventricle	One of the four chambers of the heart which receives blood from the left atrium via the mitral valve. It then pumps blood into systemic circulation.	
Aorta	A large artery which receives blood from the left ventricle and conveys blood to the rest of the body.	
Capillaries	Tiny thin-walled vessels which exchange material between blood and other body tissues.	
Superior Vena Cava	The veins from the upper portion of the body meet here and join to form this region of the heart.	
Inferior Vena Cava	The vein that returns blood from the lower body to the right atrium.	
Systemic Circulation	The blood vessels that go from the left side of the heart to the tissues and back to the right side of the heart are collectively known as this.	
Coronary Heart Disease	This is a condition in which the heart's blood vessels become blocked by cholesterol deposits and blood clots.	
Artherosclerosis	Commonly known as hardening of the arteries due to plaques forming in the lumen of the artery.	
High Density Lipoprotein (HDL)	The desirable protein carrier for plasma control.	

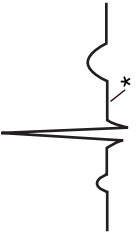
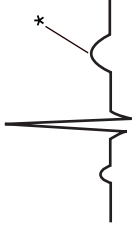
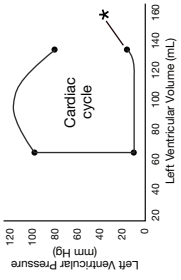
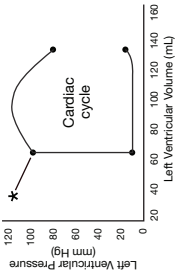
Cardiovascular Component Bingo Choice Sheet

Low Density Lipoprotein (LDL)	The undesirable protein carrier for plasma cholesterol.	
Hypertension	Chronically elevated blood pressure.	$R=8L\eta/\pi r^4$
Viscosity	Thickness or resistance to flow of a fluid (such as blood).	
Vasoconstriction	A decrease in the diameter of a blood vessel.	
Vasodilation	An increase in the diameter of a blood vessel.	
Blood Pressure	The pressure exerted by blood on the walls of the blood vessels. Usually measured in the systemic arteries.	
Pulse	Pressure wave that is transmitted through the fluid of the cardiovascular system.	
Myocardium	Cardiac muscle that makes up the heart.	
Pericardium	Tough, membranous sac that encases the heart.	
Coronary Arteries	Arteries that supply blood to the muscles of the heart.	
Coronary Veins	Veins that return blood from the heart muscle cells to the coronary sinus.	
Atrioventricular (A-V) Valves	Valves at the opening between each atria and its ventricle. They are thin flaps of tissue attached at their base to a ring of connective tissue.	
Chordae Tendineae	Tendinous cords that prevent the atrioventricular valves from being pushed back into the atria during ventricular contraction.	
Papillary Muscles	Small muscles in the interior of the ventricles to which the chordae tendineae attach.	
Tricuspid Valve	The valve that separates the right atrium and the right ventricle. It has three flaps.	
Bicuspid (Mitral) Valve	The valve between the left atrium and left ventricle. It has two flaps.	
Semilunar Valves	Heart valves between the ventricles and major arteries.	
Autorythmic Cells	Cardiac cells that spontaneously and rhythmically depolarize and fire action potentials.	
Pacemaker of the Heart	The fastest depolarizing cell, usually in the sinoatrial (S-A) node.	
Systolic Pressure	The highest pressure in the circulatory system that reflects the pressures created by contraction of the ventricles.	
Diastolic Pressure	The lowest pressure in the circulatory system, associated with relaxation of the ventricles.	
Congestive Heart Failure	Pathological condition in which the left ventricle fails to pump blood adequately, causing a backup of fluid in the lungs.	

Cardiovascular Component Bingo Choice Sheet

Myocardial Infarction	A region of damaged myocardium caused by lack of blood flow, commonly known as a heart attack.	
Target Heart Rate	The range of heartbeats per minute in which your heart and lungs receive the greatest benefit from the workout.	
Pacemaker Potential	Cardiac depolarizations of smooth and cardiac muscles that always reach threshold.	
Sinoatrial Node (S-A node)	Autorhythmic cells in the right atrium that serves as the main pacemaker of the heart.	
Internodal Pathway	Connects the S-A node to the A-V node	
Atrioventricular Node (A-V Node)	Group of autorhythmic cells on the floor of the right atrium near the septum.	
Atrioventricular bundle (A-V bundle) <i>Bundle of His</i>	Contains the Purkinje fibers and is located in the septum between the ventricles.	
Purkinje Fibers	Specialized conducting cells that rapidly transmit electrical signals.	
Bundle Branch	Two branches of the bundle of His that carry electrical signals into the ventricles.	
Complete Heart Block	A disruption of the conduction of electrical signals from the atria to the ventricles.	
Electrocardiogram (ECG)	A recording of the electrical activities of the cardiac cycle.	
Cardiac Cycle	A period of time from the end of one heartbeat to the end of the next heartbeat.	
P Wave	This portion of the ECG corresponds to the depolarization of the atria.	
QRS Complex	This portion of the ECG represents the progressive wave of ventricular depolarization.	
Q Wave	The first wave of ventricular polarization in a heartbeat.	
R Wave	The largest wave in the QRS complex.	

Cardiovascular Component Bingo Choice Sheet

ST segment	The portion of the heartbeat where the ventricles contract.	
T Wave	This portion of the ECG represents the repolarization of the ventricles.	
Diastole	The portion of the cardiac cycle in which the ventricles relax.	
Systole	The portion of the cardiac cycle in which the cardiac muscle is contracting.	
Late Diastole	Event in the cardiac cycle in which both sets of chambers are relaxed and ventricles fill passively.	
Atrial Systole	Event in the cardiac cycle in which the atrial contraction forces a small amount of blood into the ventricles.	
Isovolumic Ventricular Contraction	Event in the cardiac cycle in which the ventricular contraction pushes A-V valves closed but does not create enough pressure to open the semilunar valves.	
Ventricular Ejection	The portion of the cardiac cycle in which ventricular pressure rises and exceeds pressure in the arteries, the semilunar valves open and blood is ejected.	
Isovolumic Ventricular Relaxation	The final step in the cardiac cycle as the ventricles relax, pressure in the ventricles falls, blood flows back into the cups of the semilunar valves and snaps them closed.	
End-Diastolic Volume (EDV)	The maximum volume of blood that the ventricles hold during a cardiac cycle.	
End-Systolic Volume (ESV)	The amount of blood left in the ventricle at the end of contraction.	
Stroke Volume	The amount of blood pumped by one ventricle during a contraction.	$EDV - ESV = \text{Stroke volume}$
Cardiac Output	The volume of blood pumped per ventricle per minute.	$\text{Cardiac output (CO)} = \text{heart rate} \times \text{stroke volume}$

Cardiovascular Component Bingo Choice Sheet

Contractility	The innate ability of a cardiac muscle fiber to contract at any given fiber length controlled by the nervous and endocrine system.	
Venous Return	The amount of blood that enters the heart from the venous circulation.	
Respiratory Pump	Aides venous return of blood by movement of the thorax during inspiration, thus developing lower pressure in the inferior vena cava. This lower pressure helps draw more blood into the vena cava from the abdomen.	
Frank-Starling Law of the Heart	The ability of the heart to change its force of contraction and therefore stroke volume in response to change in venous return.	