

A&P Key Terms

18

Cardiovascular System Blood

Author: OpenStax College

Published 2015

Create, Share, and Discover Online Quizzes.

QuizOver.com is an intuitive and powerful online quiz creator. [learn more](#)

Join QuizOver.com



How to Analyze Stocks

By Yasser Ibrahim

1 month ago
12 Responses

© iStock: Thomson Moter



Pre Employment English

By Katharina jennifer N

5 months ago
19 Responses

© iStock: Albin



Lean Startup Quiz

By Yasser Ibrahim

2 months ago
16 Responses

© iStock: Gekwotwe Chua

Powered by QuizOver.com

The Leading Online Quiz & Exam Creator

Create, Share and Discover Quizzes & Exams

<http://www.quizover.com>

Disclaimer

All services and content of QuizOver.com are provided under QuizOver.com terms of use on an "as is" basis, without warranty of any kind, either expressed or implied, including, without limitation, warranties that the provided services and content are free of defects, merchantable, fit for a particular purpose or non-infringing.

The entire risk as to the quality and performance of the provided services and content is with you.

In no event shall QuizOver.com be liable for any damages whatsoever arising out of or in connection with the use or performance of the services.

Should any provided services and content prove defective in any respect, you (not the initial developer, author or any other contributor) assume the cost of any necessary servicing, repair or correction.

This disclaimer of warranty constitutes an essential part of these "terms of use".

No use of any services and content of QuizOver.com is authorized hereunder except under this disclaimer.

The detailed and up to date "terms of use" of QuizOver.com can be found under:

<http://www.QuizOver.com/public/termsOfUse.xhtml>

eBook Content License

Human Body OpenStax College. Anatomy & Physiology, Download for free at <http://cnx.org/contents/14fb4ad7-39a1-4eee-ab6e-3ef2482e3e22@7.25>

Creative Commons License

Attribution-NonCommercial-NoDerivs 3.0 Unported (CC BY-NC-ND 3.0)

<http://creativecommons.org/licenses/by-nc-nd/3.0/>

You are free to:

Share: copy and redistribute the material in any medium or format

The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:

Attribution: You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

NonCommercial: You may not use the material for commercial purposes.

NoDerivatives: If you remix, transform, or build upon the material, you may not distribute the modified material.

No additional restrictions: You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

4. Chapter: A&P Key Terms 18 Cardiovascular System Blood

1. A&P Key Terms 18 Cardiovascular System Blood Questions

<u>ABO blood group</u>	blood-type classification based on the presence or absence of A and B glycoproteins on the erythrocyte membrane surface
<u>agglutination</u>	clustering of cells into masses linked by antibodies
<u>agranular leukocytes</u>	leukocytes with few granules in their cytoplasm; specifically, monocytes, lymphocytes, and NK cells
<u>albumin</u>	most abundant plasma protein, accounting for most of the osmotic pressure of plasma
<u>anemia</u>	deficiency of red blood cells or hemoglobin
<u>antibodies</u>	(also, immunoglobulins or gamma globulins) antigen-specific proteins produced by specialized B lymphocytes that protect the body by binding to foreign objects such as bacteria and viruses
<u>anticoagulant</u>	substance such as heparin that opposes coagulation
<u>antithrombin</u>	anticoagulant that inactivates factor X and opposes the conversion of prothrombin (factor II) into thrombin in the common pathway
<u>B lymphocytes</u>	(also, B cells) lymphocytes that defend the body against specific pathogens and thereby provide specific immunity
<u>basophils</u>	granulocytes that stain with a basic (alkaline) stain and store histamine and heparin
<u>bilirubin</u>	yellowish bile pigment produced when iron is removed from heme and is further broken down into waste products
<u>biliverdin</u>	green bile pigment produced when the non-iron portion of heme is degraded into a waste product; converted to bilirubin in the liver
<u>blood</u>	liquid connective tissue composed of formed elements-erythrocytes, leukocytes, and platelets-and a fluid extracellular matrix called plasma; component of the cardiovascular system
<u>bone marrow biopsy</u>	diagnostic test of a sample of red bone marrow
<u>bone marrow transplant</u>	treatment in which a donor's healthy bone marrow with its stem cells replaces diseased or damaged bone marrow of a patient
<u>buffy coat</u>	thin, pale layer of leukocytes and platelets that separates the erythrocytes from the plasma in a

	separates the erythrocytes from the plasma in a sample of centrifuged blood
<u>carbaminohemoglobin</u>	compound of carbon dioxide and hemoglobin, and one of the ways in which carbon dioxide is carried in the blood
<u>clotting factors</u>	group of 12 identified substances active in coagulation
<u>coagulation</u>	formation of a blood clot; part of the process of hemostasis
<u>colony-stimulating factors</u>	(CSFs) glycoproteins that trigger the proliferation and differentiation of myeloblasts into granular leukocytes (basophils, neutrophils, and eosinophils)
<u>common pathway</u>	final coagulation pathway activated either by the intrinsic or the extrinsic pathway, and ending in the formation of a blood clot
<u>cross matching</u>	blood test for identification of blood type using antibodies and small samples of blood
<u>cytokines</u>	class of proteins that act as autocrine or paracrine signaling molecules; in the cardiovascular system, they stimulate the proliferation of progenitor cells and help to stimulate both nonspecific and specific resistance to disease
<u>defensins</u>	antimicrobial proteins released from neutrophils and macrophages that create openings in the plasma membranes to kill cells
<u>deoxyhemoglobin</u>	molecule of hemoglobin without an oxygen molecule bound to it
<u>diapedesis</u>	(also, emigration) process by which leukocytes squeeze through adjacent cells in a blood vessel wall to enter tissues
<u>embolus</u>	thrombus that has broken free from the blood vessel wall and entered the circulation
<u>emigration</u>	(also, diapedesis) process by which leukocytes squeeze through adjacent cells in a blood vessel wall to enter tissues
<u>eosinophils</u>	granulocytes that stain with eosin; they release antihistamines and are especially active against parasitic worms
<u>erythrocyte</u>	(also, red blood cell) mature myeloid blood cell that is composed mostly of hemoglobin and functions primarily in the transportation of oxygen and carbon

	primarily in the transportation of oxygen and carbon dioxide
erythropoietin	(EPO) glycoprotein that triggers the bone marrow to produce RBCs; secreted by the kidney in response to low oxygen levels
extrinsic pathway	initial coagulation pathway that begins with tissue damage and results in the activation of the common pathway
ferritin	protein-containing storage form of iron found in the bone marrow, liver, and spleen
fibrin	insoluble, filamentous protein that forms the structure of a blood clot
fibrinogen	plasma protein produced in the liver and involved in blood clotting
fibrinolysis	gradual degradation of a blood clot
formed elements	cellular components of blood; that is, erythrocytes, leukocytes, and platelets
globin	heme-containing globular protein that is a constituent of hemoglobin
globulins	heterogeneous group of plasma proteins that includes transport proteins, clotting factors, immune proteins, and others
granular leukocytes	leukocytes with abundant granules in their cytoplasm; specifically, neutrophils, eosinophils, and basophils
hematocrit	(also, packed cell volume) volume percentage of erythrocytes in a sample of centrifuged blood
heme	red, iron-containing pigment to which oxygen binds in hemoglobin
hemocytoblast	hemopoietic stem cell that gives rise to the formed elements of blood
hemoglobin	oxygen-carrying compound in erythrocytes
hemolysis	destruction (lysis) of erythrocytes and the release of their hemoglobin into circulation
hemolytic disease of the newborn	(HDN) (also, erythroblastosis fetalis) disorder causing agglutination and hemolysis in an Rh+ fetus or newborn of an Rh- mother

or newborn of an Rh- mother

hemophilia	genetic disorder characterized by inadequate synthesis of clotting factors
hemopoiesis	production of the formed elements of blood
hemopoietic growth factors	chemical signals including erythropoietin, thrombopoietin, colony-stimulating factors, and interleukins that regulate the differentiation and proliferation of particular blood progenitor cells
hemopoietic stem cell	type of pluripotent stem cell that gives rise to the formed elements of blood (hemocytoblast)
hemorrhage	excessive bleeding
hemosiderin	protein-containing storage form of iron found in the bone marrow, liver, and spleen
hemostasis	physiological process by which bleeding ceases
heparin	short-acting anticoagulant stored in mast cells and released when tissues are injured, opposes prothrombin
hypoxemia	below-normal level of oxygen saturation of blood (typically <95 percent)
immunoglobulins	(also, antibodies or gamma globulins) antigen-specific proteins produced by specialized B lymphocytes that protect the body by binding to foreign objects such as bacteria and viruses
interleukins	signaling molecules that may function in hemopoiesis, inflammation, and specific immune responses
intrinsic pathway	initial coagulation pathway that begins with vascular damage or contact with foreign substances, and results in the activation of the common pathway
leukocyte	(also, white blood cell) colorless, nucleated blood cell, the chief function of which is to protect the body from disease
leukocytosis	excessive leukocyte proliferation
leukopenia	below-normal production of leukocytes
lymphocytes	agranular leukocytes of the lymphoid stem cell line, many of which function in specific immunity

<u>lymphoid stem cells</u>	type of hemopoietic stem cells that gives rise to lymphocytes, including various T cells, B cells, and NK cells, all of which function in immunity
<u>lymphoma</u>	form of cancer in which masses of malignant T and/or B lymphocytes collect in lymph nodes, the spleen, the liver, and other tissues
<u>lysozyme</u>	digestive enzyme with bactericidal properties
<u>macrophage</u>	phagocytic cell of the myeloid lineage; a matured monocyte
<u>megakaryocyte</u>	bone marrow cell that produces platelets
<u>memory cell</u>	type of B or T lymphocyte that forms after exposure to a pathogen
<u>monocytes</u>	agranular leukocytes of the myeloid stem cell line that circulate in the bloodstream; tissue monocytes are macrophages
<u>myeloid stem cells</u>	type of hemopoietic stem cell that gives rise to some formed elements, including erythrocytes, megakaryocytes that produce platelets, and a myeloblast lineage that gives rise to monocytes and three forms of granular leukocytes (neutrophils, eosinophils, and basophils)
<u>natural killer (NK) cells</u>	cytotoxic lymphocytes capable of recognizing cells that do not express "self" proteins on their plasma membrane or that contain foreign or abnormal markers; provide generalized, nonspecific immunity
<u>neutrophils</u>	granulocytes that stain with a neutral dye and are the most numerous of the leukocytes; especially active against bacteria
<u>oxyhemoglobin</u>	molecule of hemoglobin to which oxygen is bound
<u>packed cell volume</u>	(PCV) (also, hematocrit) volume percentage of erythrocytes present in a sample of centrifuged blood
<u>plasma</u>	in blood, the liquid extracellular matrix composed mostly of water that circulates the formed elements and dissolved materials throughout the cardiovascular system
<u>plasmin</u>	blood protein active in fibrinolysis
<u>platelet plug</u>	accumulation and adhesion of platelets at the site of blood vessel injury

<u>platelets</u>	(also, thrombocytes) one of the formed elements of blood that consists of cell fragments broken off from megakaryocytes
<u>pluripotent stem cell</u>	stem cell that derives from totipotent stem cells and is capable of differentiating into many, but not all, cell types
<u>polycythemia</u>	elevated level of hemoglobin, whether adaptive or pathological
<u>polymorphonuclear</u>	having a lobed nucleus, as seen in some leukocytes
<u>positive chemotaxis</u>	process in which a cell is attracted to move in the direction of chemical stimuli
<u>Rh blood group</u>	blood-type classification based on the presence or absence of the antigen Rh on the erythrocyte membrane surface
<u>red blood cells</u>	(RBCs) (also, erythrocytes) one of the formed elements of blood that transports oxygen
<u>reticulocyte</u>	immature erythrocyte that may still contain fragments of organelles
<u>serum</u>	blood plasma that does not contain clotting factors
<u>sickle cell disease</u>	(also, sickle cell anemia) inherited blood disorder in which hemoglobin molecules are malformed, leading to the breakdown of RBCs that take on a characteristic sickle shape
<u>T lymphocytes</u>	(also, T cells) lymphocytes that provide cellular-level immunity by physically attacking foreign or diseased cells
<u>thalassemia</u>	inherited blood disorder in which maturation of RBCs does not proceed normally, leading to abnormal formation of hemoglobin and the destruction of RBCs
<u>thrombin</u>	enzyme essential for the final steps in formation of a fibrin clot
<u>thrombocytes</u>	platelets, one of the formed elements of blood that consists of cell fragments broken off from megakaryocytes
<u>thrombocytopenia</u>	condition in which there are too few platelets, resulting in abnormal bleeding (hemophilia)

thrombocytosis	condition in which there are too many platelets, resulting in abnormal clotting (thrombosis)
thrombopoietin	hormone secreted by the liver and kidneys that prompts the development of megakaryocytes into thrombocytes (platelets)
thrombosis	excessive clot formation
thrombus	aggregation of fibrin, platelets, and erythrocytes in an intact artery or vein
tissue factor	protein thromboplastin, which initiates the extrinsic pathway when released in response to tissue damage
totipotent stem cell	embryonic stem cell that is capable of differentiating into any and all cells of the body; enabling the full development of an organism
transferrin	plasma protein that binds reversibly to iron and distributes it throughout the body
universal donor	individual with type O- blood
universal recipient	individual with type AB+ blood
vascular spasm	initial step in hemostasis, in which the smooth muscle in the walls of the ruptured or damaged blood vessel contracts
white blood cells	(WBCs) (also, leukocytes) one of the formed elements of blood that provides defense against disease agents and foreign materials