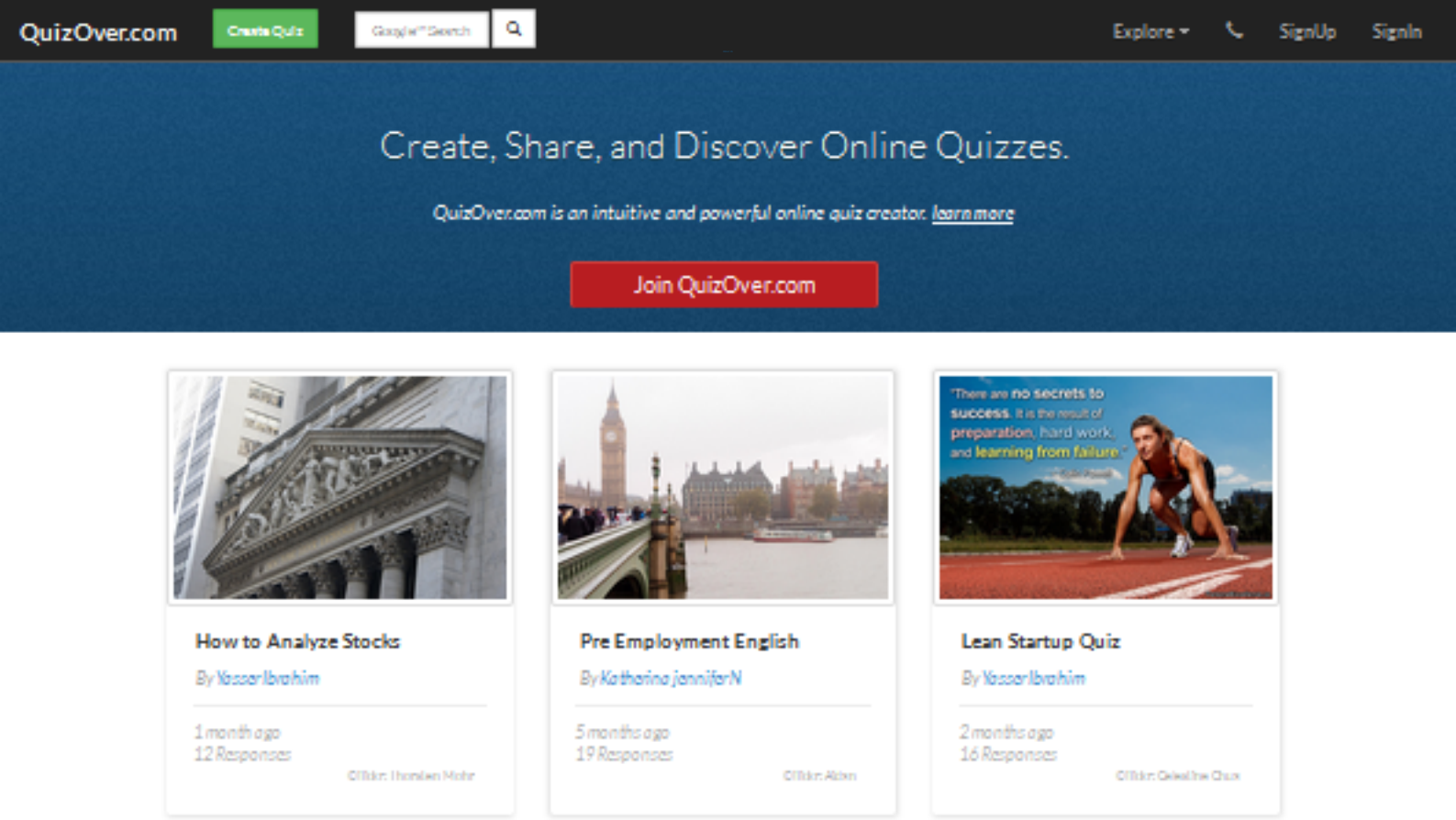
A&P Key Terms 21 Lymphatic & Immune System

Lymphatic &Immune System

Author: OpenStax College

Published 2015



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

4. Chapter: A&P Key Terms 21 Lymphatic & Immune System

1. A&P Key Terms 21 Lymphatic & Immune System Questions

active immunity	immunity developed from an individual's own immune system
acute inflammation	inflammation occurring for a limited time period; rapidly developing
adaptive immune response	relatively slow but very specific and effective immune response controlled by lymphocytes
afferent lymphatic vessels	lead into a lymph node
antibody	antigen-specific protein secreted by plasma cells; immunoglobulin
antigen presentation	binding of processed antigen to the protein-binding cleft of a major histocompatibility complex molecule
antigen processing	internalization and digestion of antigen in an antigen-presenting cell
antigen receptor	two-chain receptor by which lymphocytes recognize antigen
antigen	molecule recognized by the receptors of B and T lymphocytes
antigenic determinant	(also, epitope) one of the chemical groups recognized by a single type of lymphocyte antigen receptor
B cells	lymphocytes that act by differentiating into an antibody-secreting plasma cell
barrier defenses	antipathogen defenses deriving from a barrier that physically prevents pathogens from entering the body to establish an infection
bone marrow	tissue found inside bones; the site of all blood cell differentiation and maturation of B lymphocytes
bronchus-associated lymphoid tissue	(BALT) lymphoid nodule associated with the respiratory tract
central tolerance	B cell tolerance induced in immature B cells of the bone marrow
chemokine	soluble, long-range, cell-to-cell communication molecule
chronic inflammation	inflammation occurring for long periods of time
chyle	lipid-rich lymph inside the lymphatic capillaries of the small intestine

cisterna chyli	bag-like vessel that forms the beginning of the thoracic duct
class switching	ability of B cells to change the class of antibody they produce without altering the specificity for antigen
clonal anergy	process whereby B cells that react to soluble antigens in bone marrow are made nonfunctional
clonal deletion	removal of self-reactive B cells by inducing apoptosis
clonal expansion	growth of a clone of selected lymphocytes
clonal selection	stimulating growth of lymphocytes that have specific receptors
clone	group of lymphocytes sharing the same antigen receptor
complement	enzymatic cascade of constitutive blood proteins that have antipathogen effects, including the direct killing of bacteria
constant region domain	part of a lymphocyte antigen receptor that does not vary much between different receptor types
cytokine	soluble, short-range, cell-to-cell communication molecule
cytotoxic T cells	(Tc) T lymphocytes with the ability to induce apoptosis in target cells
delayed hypersensitivity	(type IV) T cell-mediated immune response against pathogens infiltrating interstitial tissues, causing cellular infiltrate
early induced immune response	includes antimicrobial proteins stimulated during the first several days of an infection
effector T cells	immune cells with a direct, adverse effect on a pathogen
efferent lymphatic vessels	lead out of a lymph node
erythroblastosis fetalis	disease of Rh factor-positive newborns in Rh-negative mothers with multiple Rh-positive children; resulting from the action of maternal antibodies against fetal blood
Fc region	in an antibody molecule, the site where the two termini of the heavy chains come together; many cells have receptors for this portion of the antibody, adding

	have receptors for this portion of the antibody, adding functionality to these molecules
fas ligand	molecule expressed on cytotoxic T cells and NK cells that binds to the fas molecule on a target cell and induces it do undergo apoptosis
germinal centers	clusters of rapidly proliferating B cells found in secondary lymphoid tissues
graft-versus-host disease	in bone marrow transplants; occurs when the transplanted cells mount an immune response against the recipient
granzyme	apoptosis-inducing substance contained in granules of NK cells and cytotoxic T cells
heavy chain	larger protein chain of an antibody
helper T cells	(Th) T cells that secrete cytokines to enhance other immune responses, involved in activation of both B and T cell lymphocytes
high endothelial venules	vessels containing unique endothelial cells specialized to allow migration of lymphocytes from the blood to the lymph node
histamine	vasoactive mediator in granules of mast cells and is the primary cause of allergies and anaphylactic shock
IgA	antibody whose dimer is secreted by exocrine glands, is especially effective against digestive and respiratory pathogens, and can pass immunity to an infant through breastfeeding
IgD	class of antibody whose only known function is as a receptor on naive B cells; important in B cell activation
IgE	antibody that binds to mast cells and causes antigen-specific degranulation during an allergic response
IgG	main blood antibody of late primary and early secondary responses; passed from mother to unborn child via placenta
IgM	antibody whose monomer is a surface receptor of naive B cells; the pentamer is the first antibody made blood plasma during primary responses
immediate hypersensitivity	(type I) IgE-mediated mast cell degranulation caused by crosslinking of surface IgE by antigen

immune system	series of barriers, cells, and soluble mediators that combine to response to infections of the body with pathogenic organisms
immunoglobulin	protein antibody; occurs as one of five main classes
immunological memory	ability of the adaptive immune response to mount a stronger and faster immune response upon re-exposure to a pathogen
inflammation	basic innate immune response characterized by heat, redness, pain, and swelling
innate immune response	rapid but relatively nonspecific immune response
interferons	early induced proteins made in virally infected cells that cause nearby cells to make antiviral proteins
light chain	small protein chain of an antibody
lymph node	one of the bean-shaped organs found associated with the lymphatic vessels
lymphatic capillaries	smallest of the lymphatic vessels and the origin of lymph flow
lymphatic system	network of lymphatic vessels, lymph nodes, and ducts that carries lymph from the tissues and back to the bloodstream.
lymphatic trunks	large lymphatics that collect lymph from smaller lymphatic vessels and empties into the blood via lymphatic ducts
lymph	fluid contained within the lymphatic system
lymphocytes	white blood cells characterized by a large nucleus and small rim of cytoplasm
lymphoid nodules	unencapsulated patches of lymphoid tissue found throughout the body
MHC class II	found on macrophages, dendritic cells, and B cells, it binds to CD4 molecules on T cells
MHC class I	found on most cells of the body, it binds to the CD8 molecule on T cells
MHC polygeny	multiple MHC genes and their proteins found in body cells

MHC polymorphism	multiple alleles for each individual MHC locus
macrophage oxidative metabolism	metabolism turned on in macrophages by T cell signals that help destroy intracellular bacteria
macrophage	ameboid phagocyte found in several tissues throughout the body
major histocompatibility complex	(MHC) gene cluster whose proteins present antigens to T cells
mast cell	cell found in the skin and the lining of body cells that contains cytoplasmic granules with vasoactive mediators such as histamine
memory T cells	long-lived immune cell reserved for future exposure to an pathogen
monocyte	precursor to macrophages and dendritic cells seen in the blood
mucosa-associated lymphoid tissue	(MALT) lymphoid nodule associated with the mucosa
natural killer cell	(NK) cytotoxic lymphocyte of innate immune response
naive lymphocyte	mature B or T cell that has not yet encountered antigen for the first time
negative selection	selection against thymocytes in the thymus that react with self-antigen
neutralization	inactivation of a virus by the binding of specific antibody
neutrophil	phagocytic white blood cell recruited from the bloodstream to the site of infection via the bloodstream
opsonization	enhancement of phagocytosis by the binding of antibody or antimicrobial protein
passive immunity	transfer of immunity to a pathogen to an individual that lacks immunity to this pathogen usually by the injection of antibodies
pattern recognition receptor	(PRR) leukocyte receptor that binds to specific cell wall components of different bacterial species
perforin	molecule in NK cell and cytotoxic T cell granules that form pores in the membrane of a target cell
peripheral tolerance	mature B cell made tolerant by lack of T cell help

phagocytosis	movement of material from the outside to the inside of the cells via vesicles made from invaginations of the plasma membrane
plasma cell	differentiated B cell that is actively secreting antibody
polyclonal response	response by multiple clones to a complex antigen with many determinants
positive selection	selection of thymocytes within the thymus that interact with self, but not non-self, MHC molecules
primary adaptive response	immune system's response to the first exposure to a pathogen
primary lymphoid organ	site where lymphocytes mature and proliferate; red bone marrow and thymus gland
psychoneuroimmunology	study of the connections between the immune, nervous, and endocrine systems
regulatory T cells	(Treg) (also, suppressor T cells) class of CD4 T cells that regulates other T cell responses
right lymphatic duct	drains lymph fluid from the upper right side of body into the right subclavian vein
secondary adaptive response	immune response observed upon re-exposure to a pathogen, which is stronger and faster than a primary response
secondary lymphoid organs	sites where lymphocytes mount adaptive immune responses; examples include lymph nodes and spleen
sensitization	first exposure to an antigen
seroconversion	clearance of pathogen in the serum and the simultaneous rise of serum antibody
severe combined immunodeficiency disease	(SCID) genetic mutation that affects both T cell and B cell arms of the immune response
spleen	secondary lymphoid organ that filters pathogens from the blood (white pulp) and removes degenerating or damaged blood cells (red pulp)
T cell tolerance	process during T cell differentiation where most T cells that recognize antigens from one's own body are destroyed
T cell-dependent antigen	antigen that binds to B cells, which requires signals from T cells to make antibody

	from T cells to make antibody
T cell-independent antigen	binds to B cells, which do not require signals from T cells to make antibody
T cell	lymphocyte that acts by secreting molecules that regulate the immune system or by causing the destruction of foreign cells, viruses, and cancer cells
Th1 cells	cells that secrete cytokines that enhance the activity of macrophages and other cells
Th2 cells	cells that secrete cytokines that induce B cells to differentiate into antibody-secreting plasma cells
thoracic duct	large duct that drains lymph from the lower limbs, left thorax, left upper limb, and the left side of the head
thymocyte	immature T cell found in the thymus
thymus	primary lymphoid organ; where T lymphocytes proliferate and mature
tissue typing	typing of MHC molecules between a recipient and donor for use in a potential transplantation procedure
tonsils	lymphoid nodules associated with the nasopharynx
type I hypersensitivity	immediate response mediated by mast cell degranulation caused by the crosslinking of the antigen-specific IgE molecules on the mast cell surface
type II hypersensitivity	cell damage caused by the binding of antibody and the activation of complement, usually against red blood cells
type III hypersensitivity	damage to tissues caused by the deposition of antibody-antigen (immune) complexes followed by the activation of complement
variable region domain	part of a lymphocyte antigen receptor that varies considerably between different receptor types