Chapter 15: The Lymphatic System
Study Terms

Section 1: Lymph Function and Structure

Afferent lymphatic vessels
lymphatic vessels that enter the lymph nodes at various sites

Chyle
lymph in the lacteals that has a high fat content and looks milky

Cortical nodule/lymph nodule
a dense aggregation of tissue in a lymph node

Edema
Swelling

Efferent lymphatic vessels
lymphatic vessels that leave a lymph node at the hilum

Germinal center
part of a lymphatic node that produces lymphocytes

Hilum
1. notch in the center of the concave border of the kidney through which the ureter leaves the kidney; 2. depression on one side of a lymph node

Interstitial fluid
blood plasma found in the spaces between tissue cells

Lymph
the name given to interstitial fluid when it enters a lymphatic capillary

Lymph capillaries
blind end tubes that are the origin of lymphatic vessels

Lymph sinus
space between groups of lymphatic tissue

Lymphatics
lymphatic vessels that resemble veins but have more valves

Thoracic duct/left lymphatic duct
main collecting duct of the lymphatic system

Trabeculae
fibrous connective tissue; extension of the capsule of a lymph node

Section 2: Lymph Circulation

Bronchomediastinal trunk
drains lymph from the thorax, lungs, heart, diaphragm and portions of the liver

Intercostal trunk
helps drain lymph from portions of the thorax

Intestinal trunk
drains lymph from the stomach, intestines, pancreas, spleen and surface of the liver
**Jugular trunk**
Drains lymph from the head and neck

**Lumbar trunk**
Drains lymph from the lower extremities, walls and viscera of the pelvis, kidneys and adrenal glands and most of the abdominal wall

**Lymph trunks**
The main draining vessels of the lymphatic system

**Subclavian trunk**
Drains lymph from the upper extremities

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**Section 3: Organs of the Lymphatic System**

**Palatine tonsils**
Tonsils commonly removed in a tonsillectomy

**Pharyngeal tonsils/adenoids**
Adenoids

**Spleen**
The largest single mass of lymphatic tissue

**Subclavian trunk**
Drains lymph from the upper extremities

**Thymus gland**
An endocrine gland located beneath the sternum that is also involved in immunity as a site for lymphocyte production and maturation

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**Section 4: Immunity, Antigens and Antibodies**

**Active immunity**
A type of immunity acquired naturally when exposed to a bacterium or virus or acquired artificially through a vaccine

**Antibodies/immunoglobulins**
Immunoglobulins; destroy foreign proteins

**Antigens**
Foreign proteins that gain access to our bodies through cuts and scrapes, digestive or circulatory systems or the urinary and reproductive systems

**B lymphocytes**
Cells that produce antibodies and provide humoral immunity; also known as B cells

**Cellular immunity**
Results of the body’s lymphoid tissue

**Complement**
A set of enzymes that attack foreign antigens

**Humoral immunity**
Results of the body’s lymphoid tissue

**Immunity**
The ability of the body to resist infection from disease-causing microorganisms
**Immunoglobulin A (IgA)**
type of antibody found in exocrine gland secretions, nasal fluid, tears, gastric and intestinal juice, bile, breast milk and urine

**Immunoglobulin D (IgD)**
type of antibody found on the surface of B lymphocytes

**Immunoglobulin E (IgE)**
type of antibody found in exocrine gland secretions that is associated with allergic reactions

**Immunoglobulin G (IgG)**
type of antibody found in tissue fluids and plasma

**Immunoglobulin M (IgM)**
type of antibody that develops in blood plasma as a response to bacteria or antigens in food

**Passive immunity**
occurs naturally when a fetus receives its mother’s antibodies through the placenta

**Pathogens**
disease-causing microorganisms

**T lymphocytes/T cells**
responsible for providing cellular immunity

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**Section 5: Cells of the Immune Response and Other Defenses**

**B cells**
lymphocytes found in lymph nodes, spleen and other lymphoid tissue where they replicate

**Helper T cells**
stimulate the production of killer T cells and more B cells to fight invading pathogens

**Killer T cells**
types of lymphocytes that kill virus-invaded body cells and cancerous body cells

**Lymphokines**
chemicals released by the sensitized T lymphocytes

**Macrophage**
gulp and digest antigens; monocytes

**Memory cells**
descendants of activated T and B cells

**Monokines**
chemicals released by activated macrophages involved in the immune response

**Plasma cells**
B lymphocyte cells that enter tissues and become specialized cells

**Suppressor T cells**
slow down the activities of B and T cells once infection is controlled