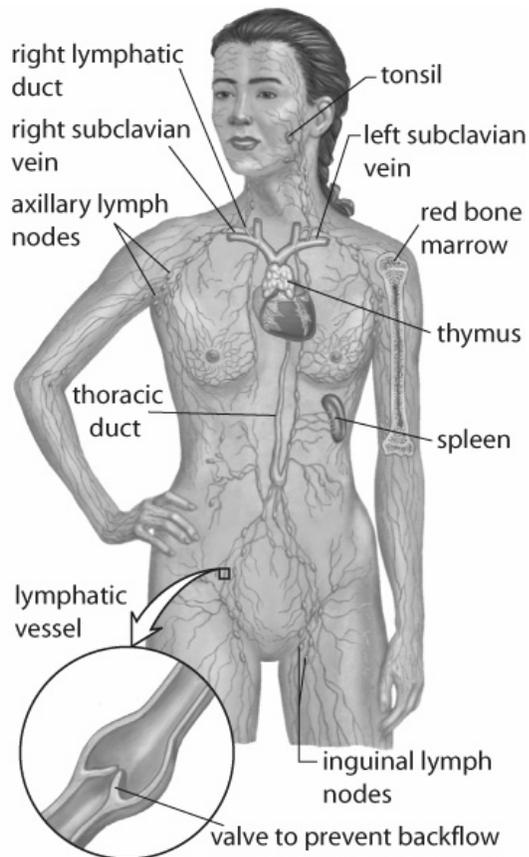


The Human Lymphatic System Answer Key

1.

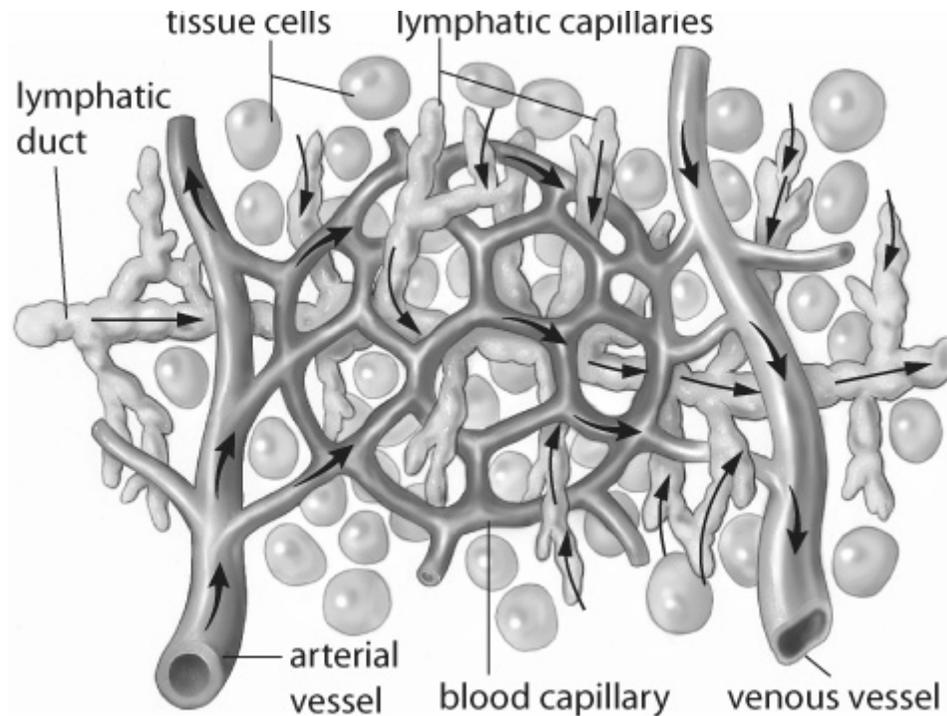


2.

- Plasma from the capillaries of the circulatory system escapes or leaks out to become part of the interstitial fluid bathing the cells; this fluid is collected by the lymphatic capillaries.
- Lymph rejoins the main circulatory system through ducts that empty into the large veins near the heart.
- Like veins, lymphatic vessels have valves to ensure one-way flow.
- Blood circulates in a continuous circuit of cardiovascular vessels and is pumped by the heart, while lymph forms in closed-ended tubes in the capillary bed.

The Human Lymphatic System Answer Key

3.



4. a) The lymphatic system fights infection in two main ways: through non-specific defences and through specific defences. Non-specific defences include several types of white blood cells that kill bacteria--sources of infection--by engulfing them (phagocytosis). Specific defences include the lymphocytes--specialized white blood cells that produce antibodies (B cells), kill infected cells (killer T cells), and protect uninfected tissue (suppressor T cells).
- b) During illness, the number of infection-fighting cells increases in the lymph node(s), which causes the nodes to swell.