

Welcome to this lesson today on the Lymphatic System. Today, we will be identifying the function of the lymphatic system as well as several structures that are associated with the lymphatic system. So the lymphatic system is a body system in your body that works in conjunction with the circulatory and immune systems. So it kind of works together with both of these different systems to fulfill different duties.

So one the things that it does is that it acts to return fluids to the circulatory system. So this is the way in which the lymphatic system works with the circulatory system. So any fluids from tissues from the body that need to be returned to the circulatory system are done so by the lymphatic system. So when fluids leak out of capillaries, for example, and are exchanged with tissues, those fluids at some point need to be returned back to the circulatory system. So the lymphatic system is the system that does that.

So the lymph vascular system is that system of capillaries and vessels that helps to collect those fluids and then transport them back to ducts of the cardiovascular system. And the lymphatic system also plays a role in the body's defense system, so this is how it ties in with the immune system. So there's different structures within the lymphatic system that help play a role in the body's defense.

So we're going to take a look at the diagram here and we'll identify how it plays a role in the body's defense as we identify some of the structures of the lymphatic system. OK, so first of all lymph is that tissue fluid that has been moved into lymph vessels. So everything labeled in green here, all these green structures, are the lymph vessels.

So we have lymph, which is that tissue fluid, moving through these lymph vessels. So that's the first thing that we're going to label here. So lymph vessels carry lymph throughout the lymphatic system.

The next thing that we're going to label is the thymus gland, so it's this blue gland right here. And the thymus gland is the location where T lymphocytes-- so lymphocytes are white blood cells, and white blood cells play a role in immunity. And if you're interested in learning more about the role of white blood cells in immunity, you can look that up in a different lesson.

But for this lesson, what you need to know is that white blood cells play a role in immunity. And a certain type of white blood cell, called T lymphocytes, mature, multiply, and become specialized in this thymus gland. So it plays an important role in the immune system because it is that place where those T lymphocytes are able to mature, multiply, and become specialized.

The spleen is another organ of our lymphatic system. And the spleen is important. It has actually various different roles.

It is the production site for antibodies, so this is where antibodies are produced, which play an important role in our immune system. It helps dispose of old red blood cells. It filters our blood. And it also stores lymphocytes. So that's the spleen.

So we labeled lymph vessels. If you can notice here on our diagram, there's these little dots all over the lymph vessels, and those are our lymph nodes. Lymph nodes. So they are scattered and located all throughout our body.

And our lymph nodes, what they actually do is they filter lymph. So as lymph is moving through our lymph vessels, it's going to pass through at least one of these lymph nodes before it enters back into the circulatory system. So these lymph nodes filter lymph and they're filled with white blood cells.

And white blood cells are a type of blood cell that help fight infections. So as lymph passes through these lymph nodes, it's passing through this filter basically so that if there are any disease-causing agents within the lymph, it gives those white blood cells a chance to take care of that before it enters back into the circulatory system.

OK, the next thing we're going to label here is bone marrow. And bone marrow is an important part of the lymphatic system because bone marrow is where white blood cells are produced. And again, white blood cells, or also known as lymphocytes, are important in the immune system because they help fight infection. So they're actually produced here in bone marrow.

And something else that's not labeled on this diagram here are your tonsils. Your tonsils are actually a part of the lymphatic system too, where bacteria can be filtered before it moves back into your system. So this lesson has been an overview on the structure and function of the Lymphatic System.