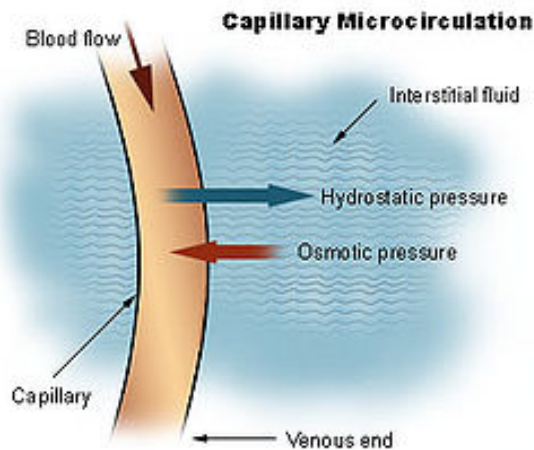


Formation of interstitial fluid from blood

Interstitial fluid forms at the arterial (coming from the heart) end of capillaries because of the higher pressure of blood compared to veins, and most of it returns to its venous ends and venules; the rest (up to 10%) enters the lymph capillaries as lymph.[3] Thus, lymph when formed is a watery clear liquid with the same composition as the interstitial fluid. However, as it flows through the lymph nodes it comes in contact with blood, and tends to accumulate more cells (particularly, lymphocytes) and proteins.[4]



Lymph Capillaries in the Tissue Spaces

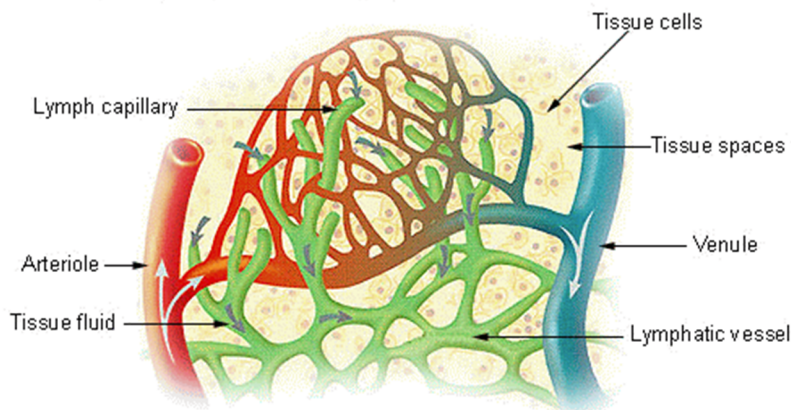


Diagram showing the formation of lymph from interstitial fluid (labelled here as "Tissue fluid"). Note: how the tissue fluid is entering the blind ends of lymph capillaries (indicated by deep green arrows)

Lymph is the fluid that circulates throughout the lymphatic system. The lymph is formed when the interstitial fluid (the fluid which lies in the interstices of all body tissues)[1] is collected through lymph capillaries. It is then transported through lymph vessels to lymph nodes before emptying ultimately into the right or the left subclavian vein, where it mixes back with blood.

Unlike the cardiovascular system, the lymphatic system is not closed and has no central pump. Lymph transport, therefore, is slow and sporadic. Despite low pressure, lymph movement occurs due to peristalsis (propulsion of the lymph due to alternate contraction and relaxation of smooth muscle), valves, and compression during contraction of adjacent skeletal muscle and arterial pulsation.[6] Lymph that enters the lymph vessels from the interstitial space usually does not flow backwards along the vessels because of the presence of valves. If excessive hydrostatic pressure develops within the lymph vessels, though, some fluid can leak back into the interstitial space and contribute to formation of oedema.

Lymph has a composition comparable to that of blood plasma, but it may differ slightly. Lymph contains white blood cells. In particular the lymph that leaves a lymph node is richer in lymphocytes. Likewise, the lymph formed in the digestive system called chyle is rich in triglycerides (fat), and looks milky white.