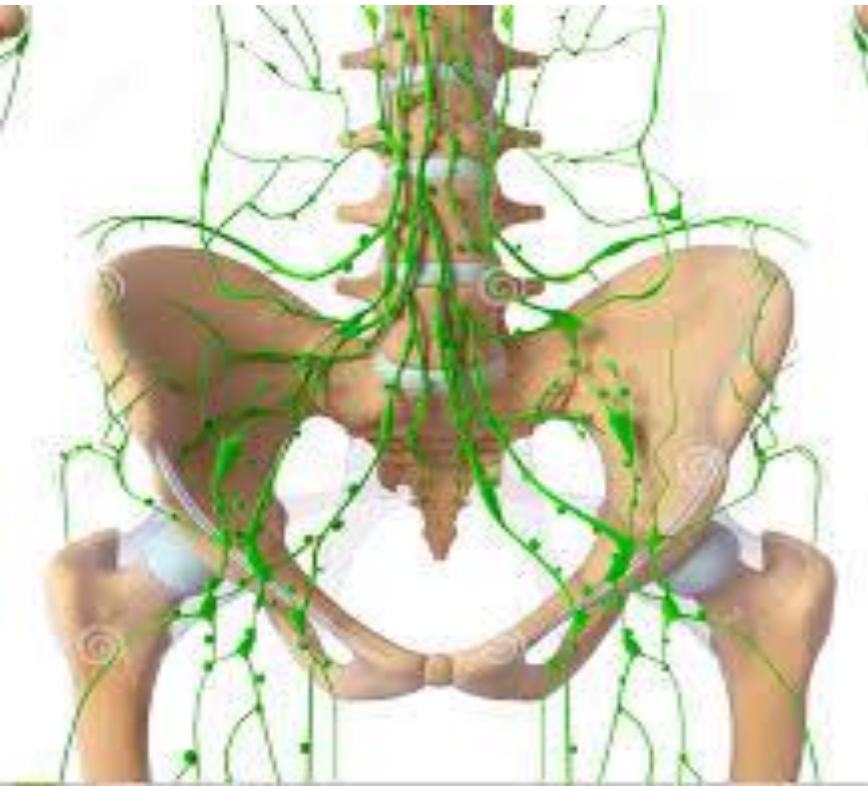


Lymphatic system

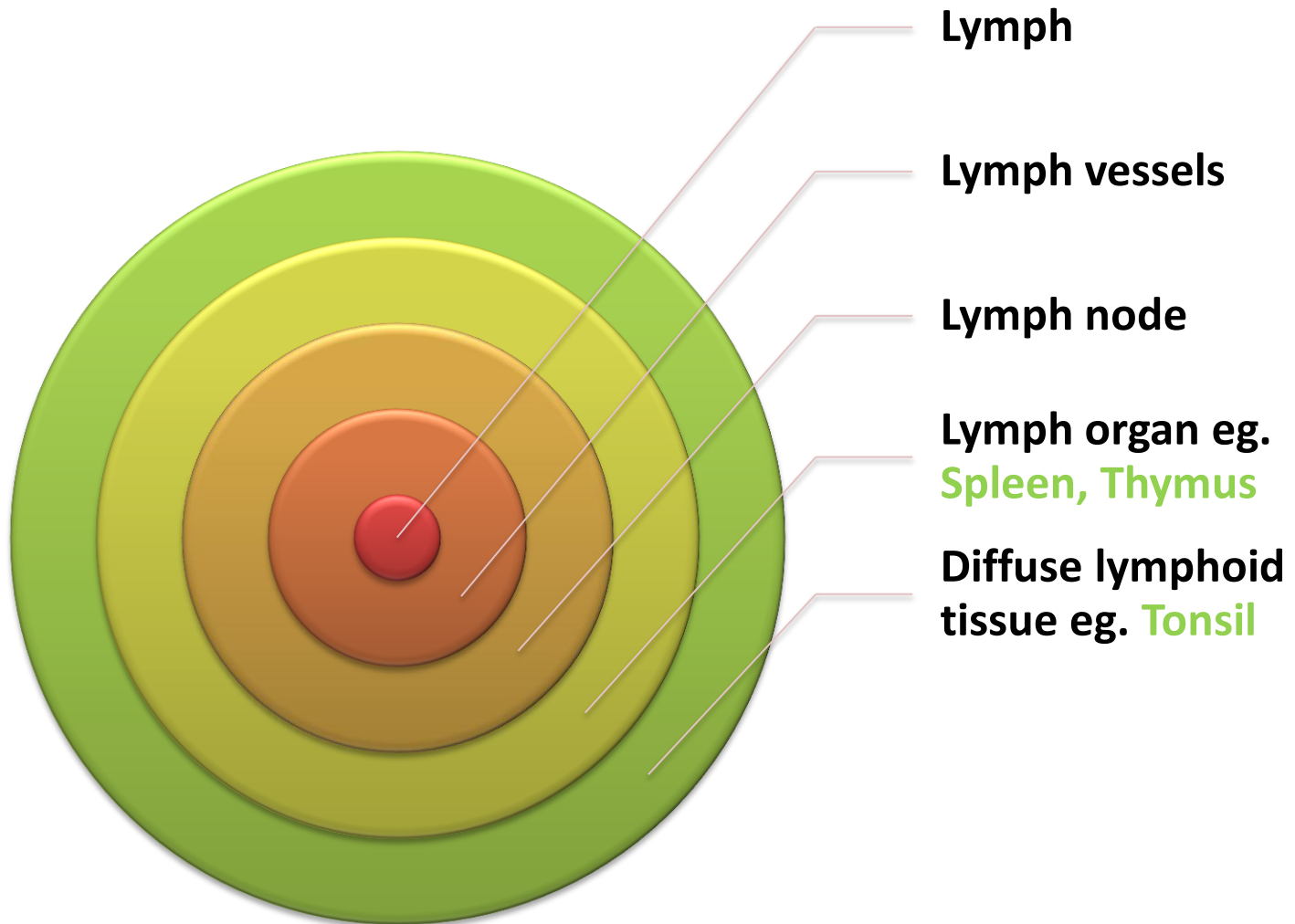


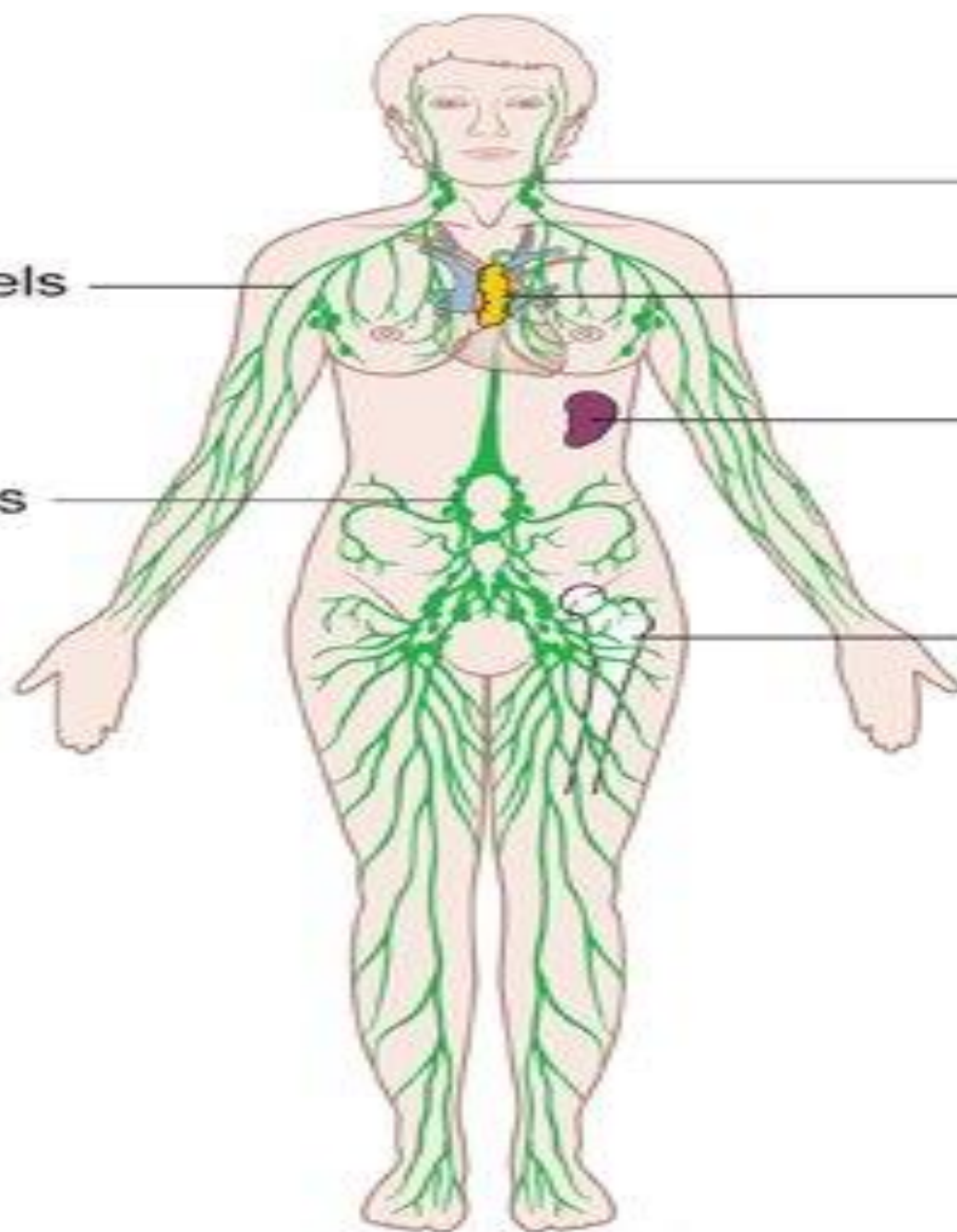
DR KUNJ BIHAREE
ASSISTANT PROFESSOR

Introduction:

- The **lymphatic system** is a network of tissues and organs that help to remove toxins, waste and other unwanted materials from the body.

It consists of:





Tonsils

Lymph vessels

Thymus

Spleen

Lymph nodes

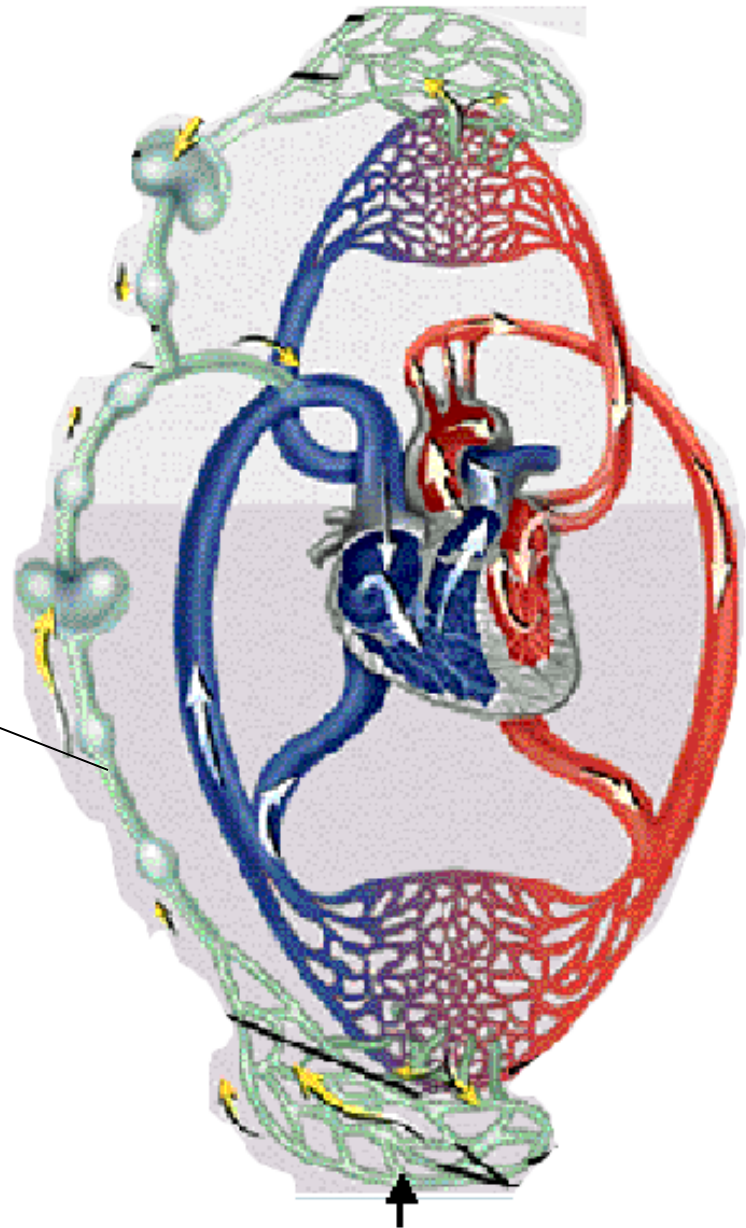
Bone marrow

Functions of L.S.:

- **Return tissue fluid to the bloodstream;**
- **It absorbs and transports fat and soluble vitamins from the intestine;**
- **Kill the micro-organisms.**

travel along with blood vessels.

1) *lymphatic vessels*



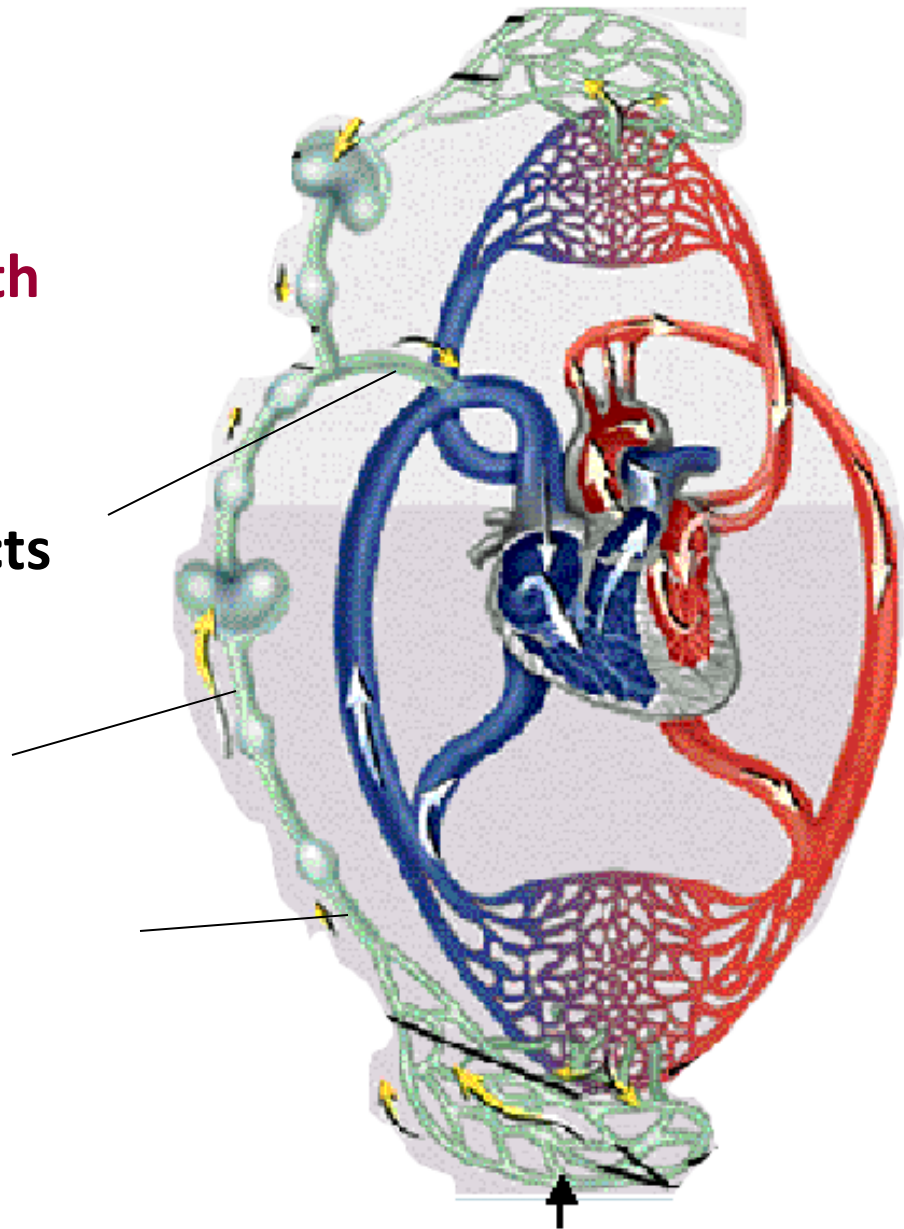
**Lymphatic vessels start with
lymphatic capillaries**

lymphatic ducts

lymphatic trunks

lymphatic collecting vessels

lymphatic capillary



Lymph:

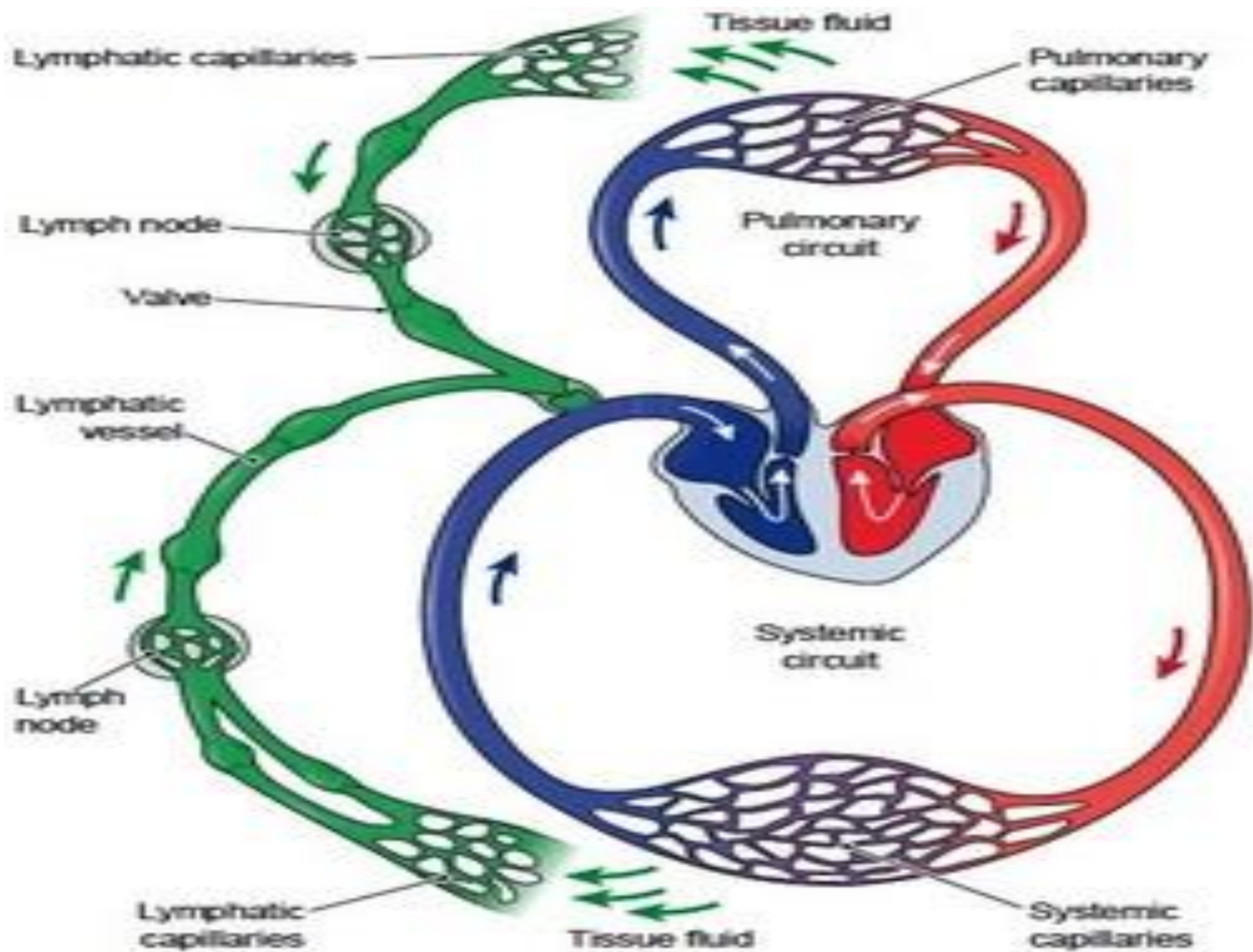
- Lymph is a clear, colourless liquid with a composition similar to blood plasma.
- It contains oxygen, proteins, glucose and white blood cells.
- **Lymph** is an alkaline ($\text{pH} > 7.0$)

Function of lymph:-

- Transports oxygen, food materials, hormones, etc., to the body cells;
- Brings carbon dioxide and other metabolic wastes, from the body cells to blood;
- Body cells are kept moist by the lymph;
- Destroys the invading microorganisms and foreign particles in the lymph nodes.

Lymph vessels:-

- Return to the blood of any fluids that have escaped from the circulation.
- Lymphatic vessels are intimately connected with blood vessels so that they can perform this function.



Circulation of Lymph:

Lymphatic trunks form the union of collecting vessels.

The **nine** major trunks:

- 1.lumbar;
2. jugular,
- 3.subclavian,
- 4.bronchomediastinal trunks, each of which occurs in pairs (left and right, for each side of the body), and -
- (5)single intestinal trunk.

➤ **The left thoracic duct** collects lymph from the left side of the body and regions of the right side of the body below the thorax.

➤ **The right lymphatic duct** collects lymph from the upper right side of the body and drains lymph into the right subclavian vein.

Lymphatic capillary



Lymphatic vessel



Lymph node



Lymphatic vessel



Lymphatic trunk



Collecting duct



Subclavian vein

CISTERNA CHYLI

➤ It is an elongated lymphatic sac

Length- 5-7 cm

Situation – in front of first and second lumbar vertebra , immediately to the right of the abdominal aorta

Tributaries- right and left intestinal lymph trunk

Termination- its upper end continues as thoracic duct

Draining area – intestinal trunk brings lymph from The stomach to intestine, pancrease, spleen, liver (antrio inferior)

All structures below diaphragm (lower half of body)

Thank
you

