

UK Lymphology Clinics - Study Room 1 - Massage World Magazine

Understanding the differences of lymph circulation and blood flow

Sensing and feeling the clients skin, how many times have you noticed you can feel when a separate system lying directly underneath your hands could be malfunctioning? A complete system that has an immediate and direct effect on your client's health and wellbeing, a system we never talk about and rarely understand. Yet your daily work has a truly profound effect. Misunderstood, mysterious and guarded by a few, knowing and understanding the lymphatic system is to be embraced in the future of massage and massage therapy. As its dramatic effect on our health is noted in rising statistics of sickness and cancer, we try to shed light on this third circulatory system!

Looking at the differences between lymph and blood flow

The lymphatic system is a one-way system; divided into two adjoining circuits. One collects waste from both legs, abdomen, left thorax, left arm, left side of the head, face and neck. The other from the small right thoracic region, right arm, right side of the head, face and neck, indicated in the diagram;(2).

Laying by each blood capillary as the venous return pressure change occurs, a tiny lymphatic capillary's epithelial cells open with fibrous anchoring filaments, contracting like trap doors to collect unwanted waste. From this blind ended capillary, directly under the skin it's collected waste has only one direction to go.

However, it will only move effectively when there is continuous pressure from a complete system (3), meaning, further up the system, i.e. towards the heart, the drainage action needs to be stimulated and vessels and nodes clear and pumping freely. It needs this pressure to travel effectively through the entire body for waste to filter through lymph nodes. Coming to its journey's end when the largest vessel, the Thoracic Duct, running parallel with the spine, enters the left subclavian vein just below the clavicle. The smaller circuit on the right-side, indicated by orange, enters the right subclavian vein. They both drain into the superior vena cava re-entering the heart with clean lymph fluid back into the blood and circulation.

This whole system with up to 1,000 nodes and millions of vessels relies on pressure changes and contractions to pump it along. Blood on the other hand has capillaries, arteries and veins and travels around in a circular route, pumped regularly by the beating heart. Passing through the heart, one to three litres per day of clean lymph fluid re-circulated by the third circulatory system, versus the blood which pumps litres per minute.

There is no continuous column of fluid within the lymphatic system vessels. Cleaning waste is a slow, thorough process as the body must remove and destroy unwanted or toxic matter, keeping the blood clean and healthy inside. The pressure within its system is continuously changing, the more we move, the more we breathe the more the waste is removed and cleaned.

Contrarily, blood flow needs a continuous column of fluid within its walls because of the heartbeat which maintains blood pressure and protein levels for maintaining blood pressure are regulated by the lymphatic system.

And because there is no continuous column within the lymphatic system, as a therapist you can feel when the pressure change is out of balance. When the skin, area or body underneath seems to have palpable inflammation, commonly known as fluid retention and

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therapists would be wise to be aware of signs of a dysfunctional lymphatic system. However, there is the occasion when knowledge of oedema can be life changing: If during a massage on a regular client you find inflammation around one leg or both, just above the ankle, distally of the Tibia and Fibula, an area which would normally be firm, or on asking the client find it has changed, slowly or suddenly, please advise they go to their GP to get it seen by a medical practitioner. *Peripheral Oedema is a physical examination finding and can be related to heart conditions.*

Diagram:1

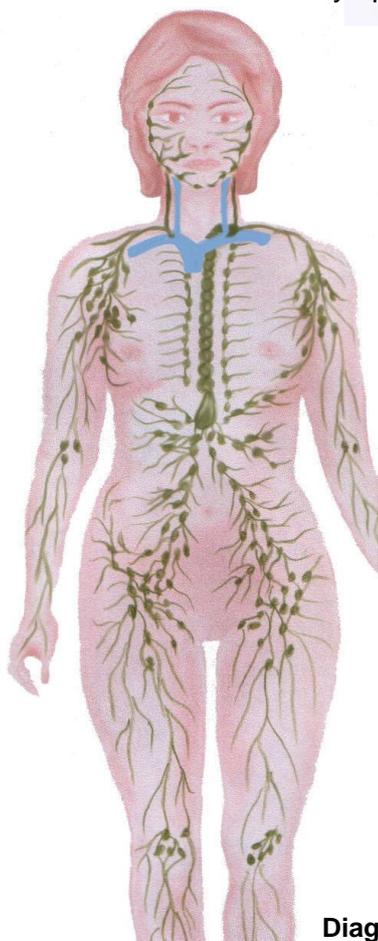
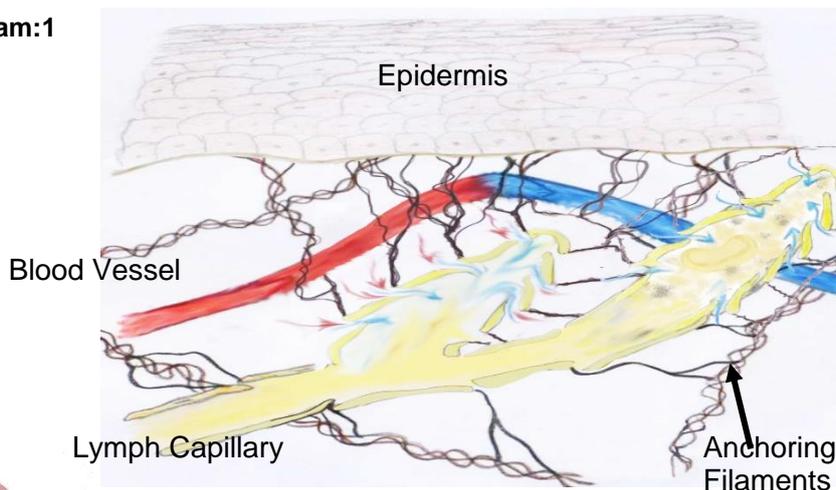


Diagram:3

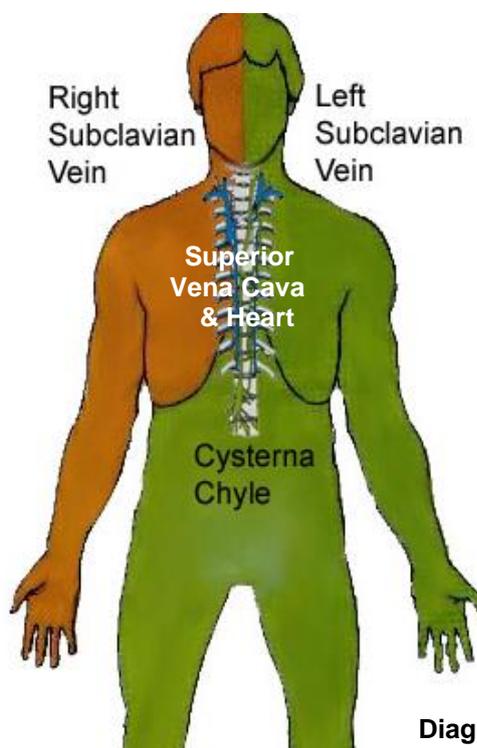


Diagram:2