

Laughter and Lymphatics . . .

Let It Flow, Let It Flow, Let It Flow!

Sue Ansari is a registered nurse, as well as a lymphatic therapist, raw food/vegan chef, CancerGuide and holistic health coach. The first female Laughter Yoga teacher in the US, she was trained by Madan Kataria MD in 2005 who told her she was the most serious person he had ever attempted to train. Sue had learned while previously training as a lymphatic therapist in Austria that the most important thing one can do for lymphedema is to deep breathe and that an easy way to accomplish that is through laughter. Working exclusively with breast cancer survivors, many of whom had lymphedema, Sue remembered that statement about laughter. Years later, knowing nothing whatsoever about Laughter Yoga, she flew off to Switzerland in 2005 for LY Teacher training, hoping to learn how to make her survivors breathe more deeply. Little did she know what impact it would also have on her own life. She returned from the training and immediately incorporated LY into her movement program which she conducted three days a week for her survivors and they loved it. A year and a half later, much to her amazement, she realized that her own depression and suicidal tendencies were completely gone. And now, the rest of the story . . .

Lymphatics and Laughter – The Connection

To understand the Lymphatic System, the Circulatory System must first be defined

- a vascular transport system composed of arteries (oxygen-rich) and veins (oxygen-poor)
- flowing in a non-stop continuous circular loop throughout the body
- arteries rich in oxygen carry blood **AWAY (downward)** from the heart, nourishing all tissues within the body
- veins carry de-oxygenated blood **BACK (upward)** to the lungs where it becomes oxygenated and the process repeats itself

- **arteries**, now depleted of O₂, **meet and join veins at the capillary bed** where they **unload waste materials, extra fluid and proteins** into the tissues . . .

The heart propels the contents of the Circulatory System

The heart beats an average of 80 beats/minute

What is the Lymphatic System?

- A **mesh-like network of very fine vessels** separate from the blood vessels, **but intertwined with the venous system**
- A **superficial system** located immediately **beneath the skin** and **above the muscles that returns cleansed lymphatic fluid to the vascular system at either side of the neck**
- A **deep system** that drains lymph from **bones, muscles and joints**
- Unlike the circulatory system which has the heart to pump the blood in a continuous circle to all parts of the body, it is a **simple transport system with no pump**
- Lymphatic fluid **moves by inertia (very slowly, approx 3 beats/min) in a semi-circular manner**, always moving fluid toward the heart
- *It is a **highly efficient cleaning conglomerate that is the backbone of the immune system***
- It continuously **collects waste materials from all over the**

body that are deposited into the tissues via blood capillaries (**at the capillary bed where arterial blood meets venous blood**)

- It then **cleans that fluid and returns it back into the circulating blood** at the neck
- Lymph **nodes are clusters of “cleaning stations”** interspersed along the lymphatic pathways, primarily in the **armpit, neck, chest, abdomen and groin**
- Lymph **nodes specialize in producing white blood cells (lymphocytes)** to clean the fluid, **antibodies** to defend against future predators, and **macrophages** to remove all manner of unwanted debris

The Physiological Process of Laughter

- Despite having no pump to move it, the lymphatic system is **capable** of being **manually moved**
- **Diaphragmatic breathing** (deep breathing that moves the diaphragm) creates a **negative pressure** within the thorax (the chest)
- The **negative pressure** literally **sucks** lymph into the **thoracic duct** (the largest lymphatic collecting vessel in the body) which is located midline in the chest, behind the diaphragm

- Under negative pressure, the lymphatic fluid seeks an area of lesser pressure, thus shooting the lymph up and out through lymphatic vessels, **increasing the speed and flow up to 10-15 times its normal rate of flow**
- The increased flow of lymphatic fluid means more lymph is passing through lymph nodes
- **Increased flow** through lymph nodes means that **more lymphocytes** (t and b-cell lymphocytes, plus NK cells - the natural killer cells) are produced
- Increased number of lymphocytes circulating in the blood **means better immunity** toward ALL diseases, especially cancer

However, the process and benefits of laughter do NOT end there . . .

- Engaging the diaphragm with **ANY** type of deep breathing (laughter included), immediately **engages the parasympathetic nervous system**
- The parasympathetic nervous system signals **ALL** body systems to **SLOW down**
- Thus producing “feel good” hormones (endorphins) that **signal stress hormones** to cool it
- Once that signal is received, **blood pressure drops, heart**

rate slows and an overall glow of “happiness in the moment”
replaces anxiety/stress - the perfect “domino effect”!

In a nutshell . . .

Laughter *engages the diaphragm,*
engaging the diaphragm *reduces stress hormones*
which *reduces blood pressure, heart rate* and ultimately
many chronic dis-*eases*.

Laughter *increases lymphatic flow,*
thus increasing the overall number of lymphocytes
which combat dis-*ease* within our bodies.

Any muscular movement stimulates and increases
lymphatic flow, but **Laughter** might prove to be the
most painless and beneficial way to *ease* ourselves into
wellness.

LIVE, LOVE, LAUGH . . .
and Let the LYMPH FLOW!

Laughter/Lymphatic article written for National Lymphedema Network by Sue Ansari with references can be found at <https://www.lymphnet.org/resources/oct-dec-2014-lymphedema-agingfrailty>

Sue's website - www.thejoyfitproject.com