Lymphedema and Potential Management

Lymphedema is a condition where spaces between tissues (interstitial) have fluid retention and tissue swelling because of a compromised lymphatic system. And removal of cancerous tissue (surgery) can be a direct cause. And unfortunately, tissues with lymphedema are also at risk of infection.

Interstitial fluid bathes and surrounds our cells. Each of us has about 11 liters of interstitial fluid that provide our cells with nutrients and a means of waste removal. The main component is tissue fluid but there is also plasma and 2.5% of other transcellular fluids. The lymphatic system plays a part in the transport of this fluid to prevent build up and fight infection.

The lymphatic system has multiple interrelated functions:

- it is responsible for the removal of interstitial fluid from the tissues
- it absorbs and transports fatty acids and fats from the circulatory system
- it contains large numbers of white blood cells (lymphocytes) to fight infection
- it transports antigen-presenting cells (APCs), to stimulate an immune response
- it allows the fluid to flow through the system and eventually rejoin the blood.

The system begins as small capillaries (single celled tubes) that carry the fluid surrounding the cells to lymph nodes (small oval shaped balls) at deeper levels in the body. The system does not have a pump, like the heart, so it relies on small smooth muscle contractions within the network, skeletal muscle contractions (walking, etc), and respiration (breathing) to help move the fluid through the system. Lymph nodes are a larger collection of lymph tissue and connective tissue that are also tightly packed with the infectious disease fighters – lymphocytes, macrophages (differentiated lymphocytes), B, T and other immune cells. Here the battle is fought against infection and cancerous detritus.

We have approximately 500-600 lymph nodes distributed throughout the body, with clusters found in the underarms, groin, neck, chest, and abdomen. When the disease fighters cannot neutralize the invader, the fluid continues to flow through the system allowing disease and cancerous cells to infect other parts (metastasis) of the body. Consequently, when cancerous tissue is surgically removed it is also necessary to remove all nodes that have been affected by this resilient invader.

The result is a compromised lymph drainage system, which is very evident with breast cancer because of the large clusters of nodes in the chest and underarms. A number of nodes may need to be removed from the chest and the armpit (axilla), when lumpectomies or mastectomies are performed. Lymphedema or swelling can develop in the breast or in the arm where the surgery occurred.

Typically, manual methods are used to manage lymphedema with differing degrees of success and staying power. Compression sleeves will sometimes provide relief for the swollen area. The Vodder Manual Lymphatic Drainage is a light pressure technique that

helps to move the lymph through the system and reduce swelling. The Graff Lymphatic Recovery Treatment, a more recent development, is an intense approach utilizing constant motion to dislodge congestion, get the lymph flowing and reduce swelling. The body can be very resilient, if you find the approach that works best for you.