

## **Compression- a Solution for Edema**

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Swelling or Edema- We all get it at some point in our life, in our ankles, after an injury, when taking certain medications, or as we age when the veins in our legs are not as competent to keep the blood moving upwards. Swelling can occur in any part of the body.

When edema occurs, more fluid leaves the arterial side of the capillaries (ultrafiltration) and remains in the tissues because the venous system cannot handle the fluid load. The lymphatics must then work harder and faster to try to keep us edema free (Safety Valve function) but can be overwhelmed. This is a lymphodynamic edema that can progress to a phlebolympoedema over time.

LDT can be very effective for reducing edemas related to traumas, certain injuries and mild venous insufficiency as well as lymphedema. Compression can also be used for those clients who are “healthy” but stand on their feet or sit most of the day, or have mild swelling around the ankles in the evening.

The “right” type of compression works by acting as a “second skin, by not allowing the skin to stretch against the increasing pressure in the tissue spaces that is causing the edema. Compression acts as resistance against the contracting muscles thereby increasing the pressure inside the tissues and facilitating re-absorption. Fluid moves from the tissues into the small veins and initial lymphatics and eventually returns to the general circulation.

What is the right type of compression? Choosing the most appropriate type of compression depends on the patient’s history, length of time they have had the edema, the extent of the edema and a physical assessment of what the edema looks and feels like.

It is important to understand the differences between short and long stretch bandages and garments/compression devices and when they would be most appropriate.

Bandages are made of textile materials which have different amount of stretch to them. The “ACE” wrap is made of elastic fiber which allows the bandage to stretch almost double its length. The elasticity in the fibers create a “high resting pressure” meaning the bandage can be difficult to tolerate for a long period of time and a low working pressure. A low working pressure means that the bandage will stretch against the contracting muscle or joint thereby not assisting in venous return. This type of bandage has been used for support but a much better choice is the short stretch bandage.

Short stretch bandages work just the opposite by having a low resting pressure, being comfortable to wear all day and a high working pressure in that they provide resistance against the contracting muscle/joint. This type of bandage is woven differently to not allow as much stretch, thereby creating resistance against the working muscle, increasing

tissue pressure, and facilitating re-absorption. A swollen ankle or injured knee should be wrapped with a short stretch bandage, not an “ACE” wrap as the short stretch bandage will be supportive, yet comfortable.

Short stretch bandages should be used during an acute injury. After a few days if the edema remains which is common in older individuals with venous problems- then a compression garment can be suggested.

For Lymphedema, only a short stretch bandage should be used! Product names are Comprilan, Rosidal K and LoPress. The width and length of these bandages are listed in centimeters (width) and meters (length.) as these bandages are manufactured in Germany.

*Renee Romero's Lymphedema Corner* is a series of articles that you will want to continue to read in all the upcoming CHI newsletters.

For more information on bandages and products visit: [www.bandagesplus.com](http://www.bandagesplus.com)