Lymphedema Management for Healthcare Providers

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Objectives

- Recognize various clinical presentations of edema
- Appreciate that all edema is on a lymphedema continuum
- Implement proper interventions to manage lymphedema
- Understand when to refer to a lymphedema specialist

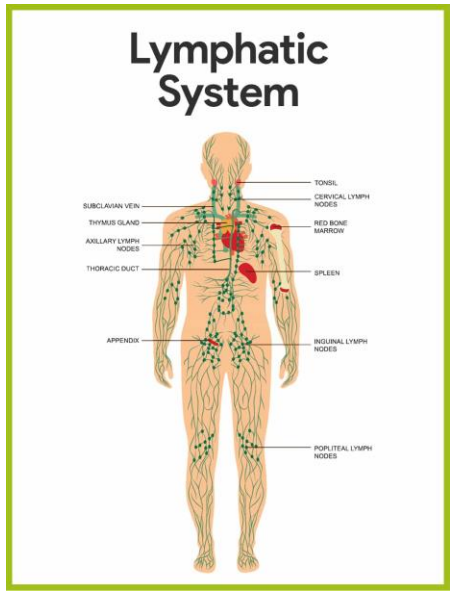
Look Familiar?

These patients are not just ‘obese’ or have ‘swelling’

They have real conditions/diseases

Recognizing some of the specific characteristics and clinical presentations of these conditions, will help you to better identify and diagnose your patients and either render treatment or refer to trained specialists

Let’s discuss some common, yet hidden epidemics you see every day in your clinic…



Lymphedema

- Chronic, incurable condition that is characterized by an abnormal collection of *protein-rich fluid* as a result of an anatomical alteration to the lymphatic system (can be congenital or acquired)
- May lead to impairments in function, integument disorders, discomfort and psych issues

Lymphedema

Stage 0- Latency

- Not clinically detectable

Stage I- Reversible Lymphedema

- Accumulation of protein-rich edema fluid
- Pitting
- Reduces with elevation
- Transient
- No fibrosis

Stage II- Spontaneously Irreversible Lymphedema

- Protein-rich edema fluid
- Persistent swelling
- Connective and scar tissue

Stage III- Lymphostatic Elephantiasis

- Protein-rich edema fluid
- Connective and scar tissue
- Hardening of dermal tissues
- Papillomas of the skin

Lymphedema Key Symptoms

- Usually unilateral, if bilateral the swelling is asymmetrical
- Slow progression
- Normal skin color unless other comorbidities
- Positive “Stemmer” sign (negative does not exclude diagnosis)
- Discomfort or heaviness; No pain, paresis/paralysis (exceptions: radiation damage, stroke, other conditions)
- Deepening of natural skin folds
- If malignant, onset is sudden with rapid proximal to distal progression

Lymphedema Additional Considerations

Remember: All edema 'indicates an inadequacy or failure of the lymphatic drainage'

Lymphatics Temporarily Overwhelmed

Lymphatic Transport Capacity

Overwhelmed…Most Edemas
(transient lymphedema)

Lymphatics Permanently Impaired or Damaged

Permanently Damaged…
The Disease of Lymphedema

The Lipedema Project

Lipedema

- A pathological deposition of fatty tissue, usually below the waist, leading to progressive leg enlargement
- Occurs almost exclusively in women
- May be inherited
- Frequently misdiagnosed as lymphedema
- Often confused with obesity
- Diagnosis is ***clinical***

Lipedema Key Symptoms

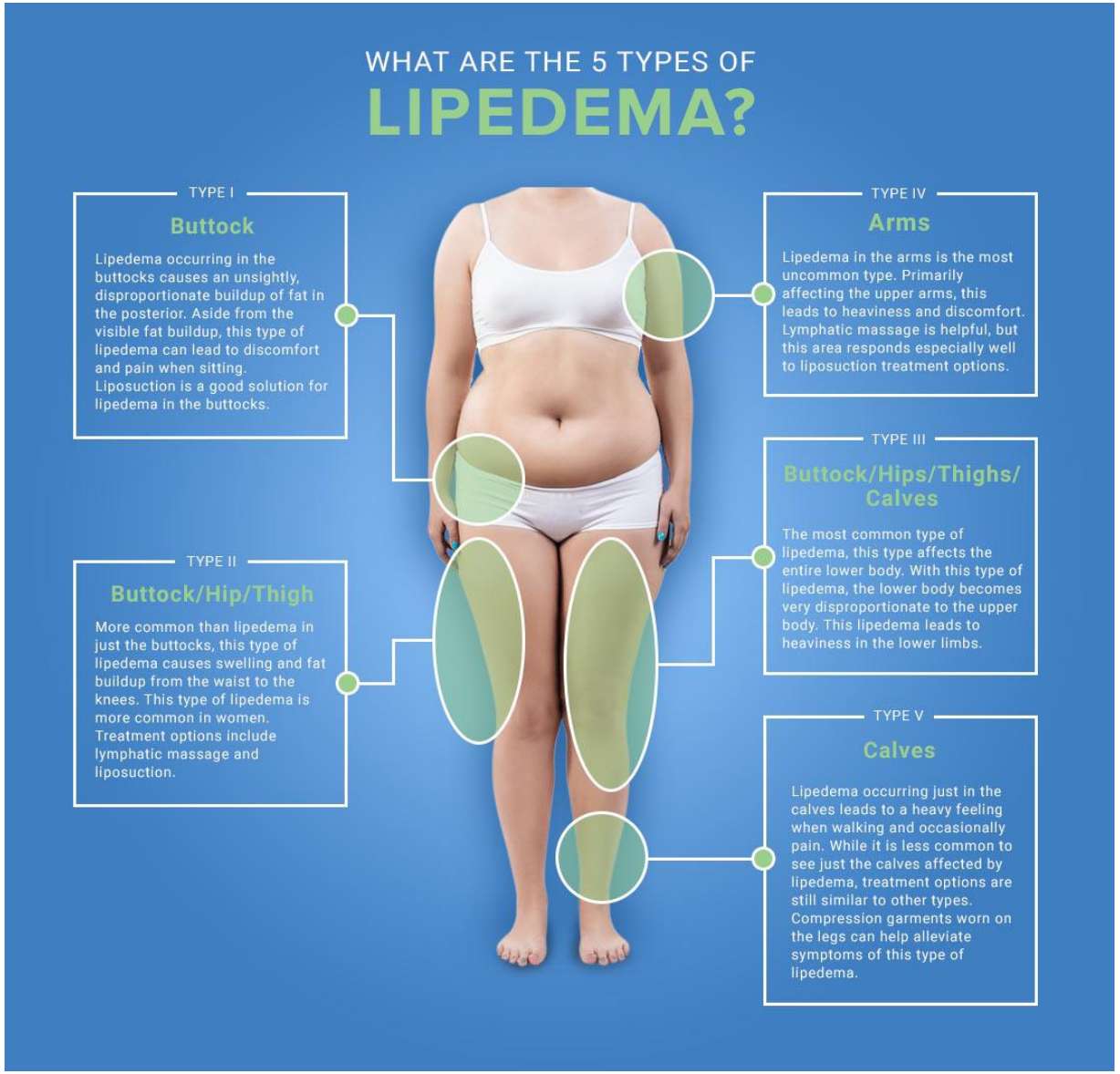
- Feeling of heaviness in the legs (aching dysesthesia)
- Easy bruising due to a lack of anchoring of the small capillaries in the connective tissue, which results in tearing when affected by the pull of gravity
- Sensitivity to touch (painful fat syndrome)
- Orthostatic edema during long periods of standing
- May have “oatmeal changes” to the skin
- Fat pad sign (filling of retro-malleolar sulcus)
- Typically, excess adipose accumulation from the ankles to the hips (feet are spared)

Lipedema Additional Considerations

- Knee hyper-mobility
- Knee problems common which may lead to gait impairment
- Fat pads above, inside and below knees and in outer region of upper thighs
- Fat lobes or pads may put stress on joints causing abnormal gait and/or increased joint pain
- Accumulation of lipedemic fat in the upper arms, sometimes leaving large amounts of arm fat hanging when arm is outstretched
  - Research reports a range of 30-90% of people with lipedema are affected in their arms as well

Progressive Condition
4 stages and 5 types

www.fatdisorders.org
www.lipedema.net



Mixed Presentations

- If you know the characteristic signs/symptoms of various conditions, you will be able to recognize them clinically
- Many patients present with combination conditions/disease states
  - This is important to understand as it will guide your interventions and referrals
- Most of these hidden epidemics can be diagnosed through a thorough history and physical
  - Just know the right questions to ask

Mixed Presentations

Are you dealing with a fluid issue or adipose issue (or both)?

What is the quality of the fluid?

What is the quality/texture of the skin?

What are the underlying medical conditions/co-morbidities?

Mixed Presentations

These conditions can present independently or in combination…

Lipedema

Phlebolymphedema

Lipolymphedema

Phlebolipolymphedema

Note the telltale clinical characteristics of these various conditions

If you know what to look for, you will find it!

This will guide your interventions or need for referral

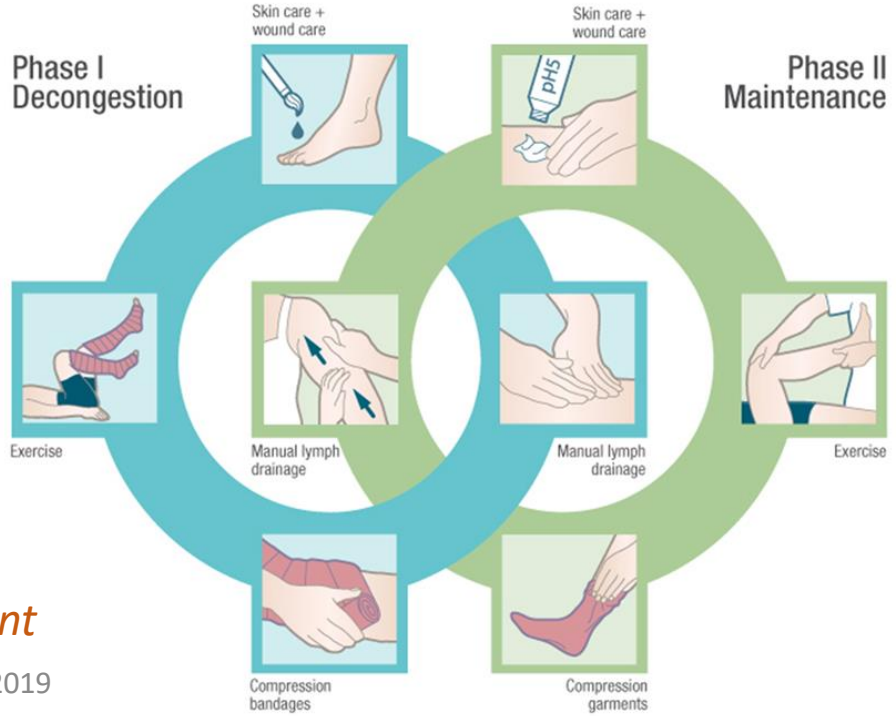
Management Considerations

Edema

- Typically transient
- Rest, Ice, Compression, Elevation

Lymphedema

- Lifelong
- Complete Decongestive Therapy



Both require appropriate skin & wound management

CDT best performed by Certified Lymphedema Therapist (CLT)

- **Fully qualified:** Completed a 135-hour training course, qualifying as a CLT (partial training is common).
- **LANA (Lymphology Association if North America) certified:** Took a written test after meeting training qualifications of at least 135 hours of training through a qualified school.
- **Attended one of the below qualified training schools:**
  - Academy of Lymphatic Studies (ACOLS)
  - Brennan School of Innovative Lymphatic Studies
  - Casley Smith International
  - Dr. Vodder School International
  - Norton School, Klose, Vodder
  - Casley-Smith
  - ILWTI (International Lymphedema & Wound Training Institute)
  - Klose Training
  - LeDuc
  - Norton School of Lymphatic Therapy
  - Pacific Therapy Education, Inc.
- **Receives post-training & on-the-job learning:**
- On going learning (the only training school that required in-person re-certification is Vodder)
- In-clinic supervision

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https://www.clt-lana.org/search/therapists/

Phases of Lymphedema Therapy- CDT

Phase I (clinician driven)

- skin and nail care
- MLD
- compression bandaging
- exercises
- self care training

Phase 1 until volume reduction and plateau

Phase II (patient driven)

- skin and nail care
- self MLD as needed
- compression garments (daytime)/bandaging (nighttime) or use of wraps (
  - pumps ok during phase II
- exercises

Phase 2 continued for life

Goal of Lymphedema Therapy

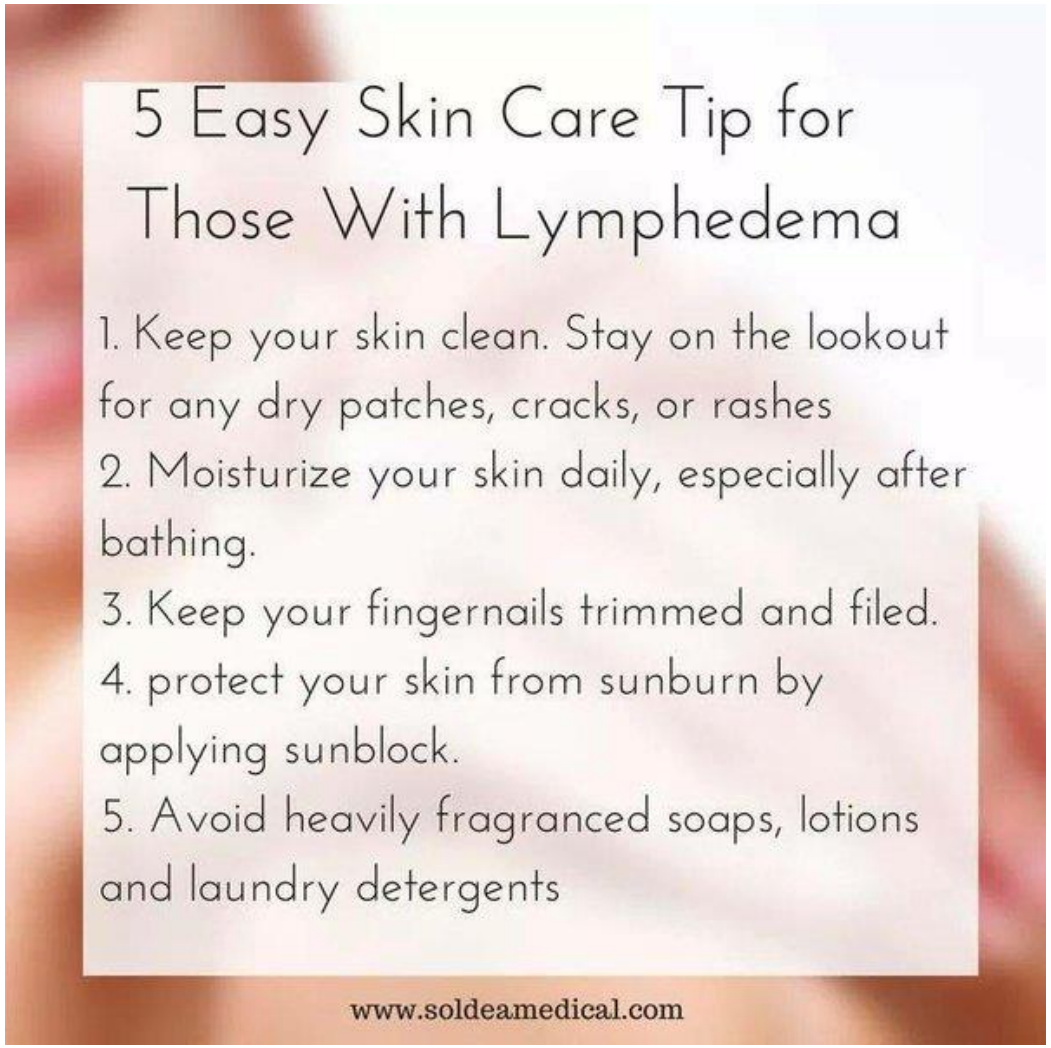
The goal of the two-phase therapy is to bring the lymphedema back to a stage of latency or to a near-normal state for the individual

Components of CDT

- Skin and Wound Care
- Manual Lymph Drainage (MLD)
- Compression
- Decongestive Exercises

Components of CDT- Skin Care

- Skin Care- infections are very common and a serious complication of lymphedema
- Each patient is taught meticulous skin and nail care
  - eliminate bacterial and fungal growth
  - prevent infection
  - recognize signs of cellulitis
- Therapy cannot proceed until all infections, bacterial or fungal, are under control



Components of CDT-Manual Lymph Drainage (MLD)

- Mobilize lymph fluid
- Improve the activity of lymph vessels
- Re-route lymph flow around blocked or non-functional areas into more centrally located, healthy areas
- Manual technique; not massage

Components of CDT-Compression

Depending on the phase of therapy (Phase I or II)

- Short-stretch bandages
- Compression garments
- Combination of both
- Bandage alternatives- wraps

Non Stretch (inelastic)

Short Stretch

Long Stretch

Compression Stockings or Garments

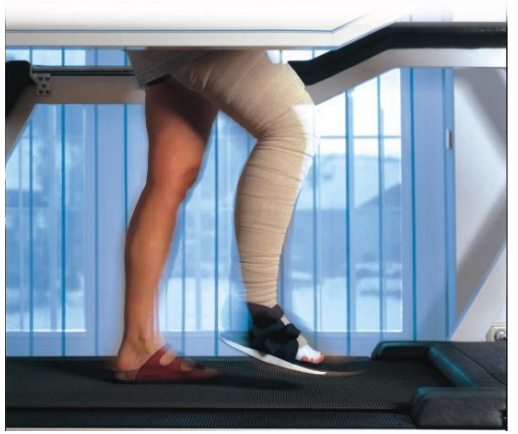
Compression Wraps

Intermittent Or Sequential Pneumatic Compression

Components of CDT- Exercise

Decongestive Exercises

- involves basic exercises and breathing techniques
- assists the lymphocinetic effects of joint and muscle pumps
- best performed several times a day with minimal reps
- performed with the bandages/garments in place
- increases lymph vessel activity, improve circulation
- diaphragmatic exercises increase volume of lymph fluid transported by the thoracic duct
- keep it simple
- yoga is ideal
- Rebounding



Find what activities patients like to do!

Goal of CDT Expected Outcomes

- Utilize remaining lymph vessels and other lymphatic pathways
- Decongest swollen body parts
- Eliminate fibrotic tissue
- Avoid reaccumulation of lymph fluid
- Prevent/eliminate infections
- Maintain normal to near normal limb size

Expected Outcomes and Considerations

If lymphedema is bilateral, treat the more involved extremity first. Once decongested, begin phase 1 on other extremity.

Let patients know they may have to go to the bathroom more frequently; set expectations

Make sure patients stay hydrated

No diet exists for lymphedema, however low inflammatory foods are recommended; do not limit protein

Adherence is key!