


Lymphedema 20/20

The State of CDT
and the Treatment of
Lymphedema and Lipedema

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MLD/CDT Cert. Instructor


POWER2020
LYMPHATICS
MAR 12-14 | LAS VEGAS | POWERSYMPIUM.COM

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What's Ahead

1. Lymphedema Precautions/Risk Reduction Practices
2. Modern MLD or no MLD – Is it time to change old practice?
3. Providing effective CDT
4. Taking a new look at Lipedema
5. Starling's Law – Its revision and the glycocalyx;
A new look at the fluid dynamics on the capillary wall



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Klose Training
Lymphedema Certification

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Juzo Power 2020

Guenter's Presentation Print Friendly
Lymphedema 20/20: Lymphedema and Lipedema Treatment Updates

Lymphedema Precautions / Risk Reduction
Debunking Lymphedema Risk-Reduction Behaviors: Risky Conclusions.
J. Nudelman. Lymphatic Research and Biology, 14(3) 124-126. 2016. (Editorial)

Impact of Ipsilateral Blood Draws, Injections, Blood Pressure Measurements, and Air Travel on the Risk of Lymphedema for Patients Treated for Breast Cancer. C. Ferguson, et al. Journal of Clinical Oncology, 34(7): 691. March 1, 2016.

KLC 2019: Linda Hodgkins

Lymphedema Program Growth through Standardization: *Go Back to the Future*
The Hartford Treatment Model
Linda Hodgkins MS OTR/L, CTP, AHA



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Lymphedema Precautions




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Lymphedema Precautions: Time to Abandon Old Practices?

VOLUME 33 | NUMBER 3 | MARCH 1, 2016

JOURNAL OF CLINICAL ONCOLOGY ORIGINAL REPORT

Impact of Ipsilateral Blood Draws, Injections, Blood Pressure Measurements, and Air Travel on the Risk of Lymphedema for Patients Treated for Breast Cancer

David M. Ferguson, Mahesh K. Srinivasan, John P. Costantino, Melissa K. Mahoney, Cynthia A. Hudis, Cynthia L. Hudis, Lawrence J. Gray, Christl A. Hudis, et al

Abstract
The goal of this study was to evaluate the impact of ipsilateral blood draws, injections, blood pressure measurements, and air travel on the risk of lymphedema in breast cancer survivors. We conducted a retrospective cohort study using data from the Breast International Group (BIG) 1-98 trial, which included 2,123 patients who underwent breast cancer treatment. We assessed the impact of ipsilateral blood draws, injections, blood pressure measurements, and air travel on the risk of lymphedema. We found that ipsilateral blood draws, injections, blood pressure measurements, and air travel were associated with an increased risk of lymphedema. Our findings suggest that these practices should be avoided in breast cancer survivors to reduce the risk of lymphedema.

Keywords: lymphedema, breast cancer, blood draws, injections, blood pressure, air travel.

Arin K. Greene, Summer A. Stearns, Vikram Desai, Editors

Lymphedema

Presentation, Diagnosis, and Treatment

Springer

Myths Associated with Lymphedema

Arin K. Greene, MD
Lymphedema: Presentation, Diagnosis and Treatment
Springer 2015

Saturday, October 26, 2019

Preventing Lymphedema: Separating Fact from Fiction

Babak Mehrara, MD

Babak Mehrara MD

Alphonse Taghian, MD
NLN Conference 2019

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LYMPHATIC RESEARCH AND BIOLOGY
Volume 14, Number 3, 2016
© Mary Ann Liebert, Inc.
DOI: 10.1089/lrb.2016.0027

Guest Editorial

Debunking Lymphedema Risk-Reduction Behaviors: Risky Conclusions

Judith Nudelman, MD

A RECENT ARTICLE in the *Journal of Clinical Oncology* by Ferguson et al.¹ is being summarized, both in the *NEJM Journal Watch* and in the associated JCO editorial by Ahn and Port,² as demonstrating and proving that iatrogenic trauma to the at-risk arm and flying without compression garments do not cause breast cancer-related lymphedema (BCRL), and clinical practice should be changed to reflect these conclusions.² *Journal Watch* states: “Study debunks conventional guidance about lymphedema prevention.”

A physician or health care provider can now rebut a woman who asks for avoidance of an IV/automatic blood pressure measurement/IM injection that the evidence “proves” she is at no risk. The editorial states that only weight gain and infection are proven to cause BCRL and counsels providers to take blood

swelling in the hand or chest. It cannot measure subclinical lymphedema without measurable swelling. It is not a stand-alone tool for measuring lymphedema and cannot ascertain volume increases in the entire quadrant at risk. Lymphedema is not a static disease, and those women with fluctuating swelling and swelling in the hands, trunks, or breasts will be missed by the perometer. The greatest yield in diagnosis comes from careful observation, surveys, and volume measurement.^{5,7} The editorial dismissed surveys as subjective, yet Armer et al. and others have found surveys to be both validated and highly correlated with BCRL.

Ferguson et al. presented an observational study, which has limitations. The patients’ arm volumes were used to determine whether they had lymphedema. The authors were careful to state

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Painful lymphedema afflicts millions of patients after cancer surgery

By **Ranit Mishori**
Special to The Washington Post
Monday, November 8, 2010, 2:40 PM

It's the aftershock of cancer surgery, a complication that breast cancer survivor _____ of Phoenix calls "cancer treatment's dirty little secret," a nasty surprise that sneaks up on you.



Special garments ease an agonizing ailment for women. But insurance may not pay.

By **Carmen Heredia Rodriguez**

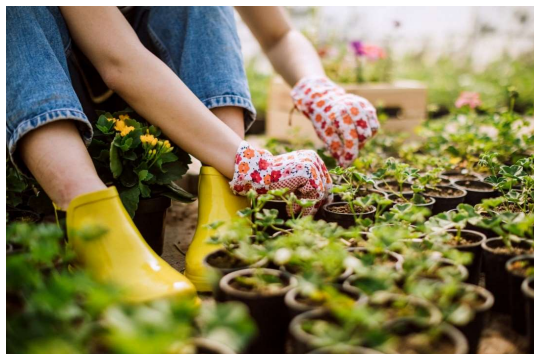


Yes, breast cancer survivors, you can lift weights, get manicures and garden

By **Susan Berger**

July 6, 2019 at 10:30 a.m. MDT

For more than 25 years, many breast cancer survivors were given a lifelong, life-changing warning: Do not lift anything over five pounds, avoid getting manicures, taking saunas or even gardening since it might lead to a painful complication called lymphedema, which can cause irreversible swelling in the arm and often hardening of skin.



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Take Home Message

- Risk Reduction Practices are not obsolete!
- Education is power!



Position Statement of the National Lymphedema Network
By the National Lymphedema Network

TOPIC: Lymphedema Risk Reduction Practices

Lymphedema is the accumulation of protein-rich fluid in the lymphatic system. It is not cancer, but it can be associated with cancer treatments. It is a chronic condition that can be prevented or delayed by following risk reduction practices. It is a complex condition that can be prevented or delayed by following risk reduction practices. It is a complex condition that can be prevented or delayed by following risk reduction practices.

Medical Check-ups: Have regular follow-up visits with your healthcare provider to monitor your lymphedema. The following information is provided to help you understand your lymphedema and to help you make decisions about your care.

Applying changes: Report to your healthcare provider any changes to your lymphedema, such as an increase in size, weight, or color, or changes in the way it feels. If you notice any changes, report them to your healthcare provider as soon as possible.

Body weight: Maintaining a healthy weight is important for lymphedema. A person with lymphedema should maintain a healthy weight and avoid gaining weight. If you gain weight, it is important to report it to your healthcare provider as soon as possible.

NLN's 15th Anniversary Book, 2018 © The Foundation, 2018. 361/303
 Tel: 415.269.9999 | Fax: 415.269.3822
 Website: 1.800.441.2224 | Email: info@lymphnet.org | www.lymphnet.org

Healthy Habits for Patients at Risk for Lymphedema

Healthy Lifestyle: A healthy diet and exercise are important for overall good health.

Medical Check-ups: Regular check-ups are important for lymphedema.

Healthy Habits: Regular exercise, a healthy diet, and maintaining a healthy weight are important for lymphedema.

Wound Care: Proper wound care is important for lymphedema.

Hygiene: Good hygiene is important for lymphedema.

Exercise: Regular exercise is important for lymphedema.

Prevention: Preventing lymphedema is important for lymphedema.

Please Note: These guidelines are meant to help reduce your risk of developing lymphedema and are NOT intended to replace your healthcare provider's advice. They are not a substitute for professional medical advice. Always consult your healthcare provider for more information.

NLN's Risk Reduction Practices
 NLN's Healthy Habits chart
lymphnet.org/position-papers



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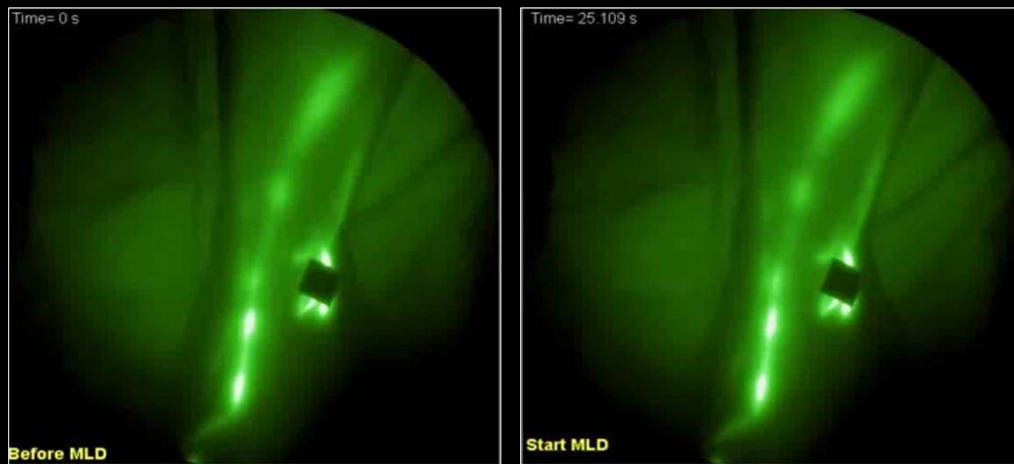


Modern MLD or no MLD:
Is it time to change old practice?



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NEAR-INFRARED FLUORESCENCE IMAGING



Before MLD

During MLD

E.M. Sevik-Muraca

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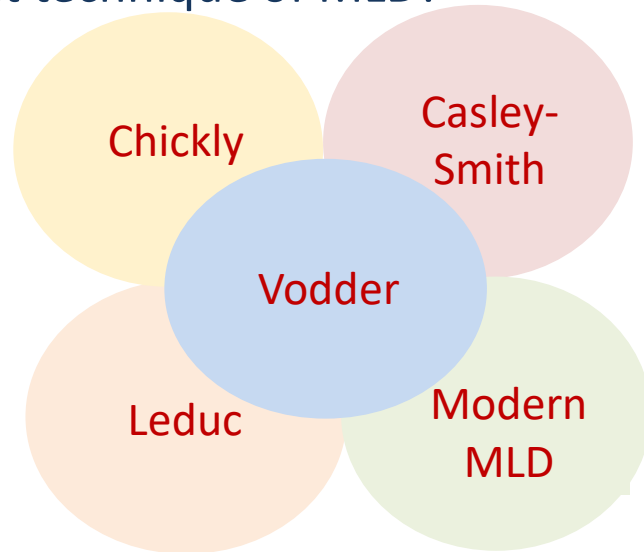


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There is no universal agreement about
the correct technique of MLD!



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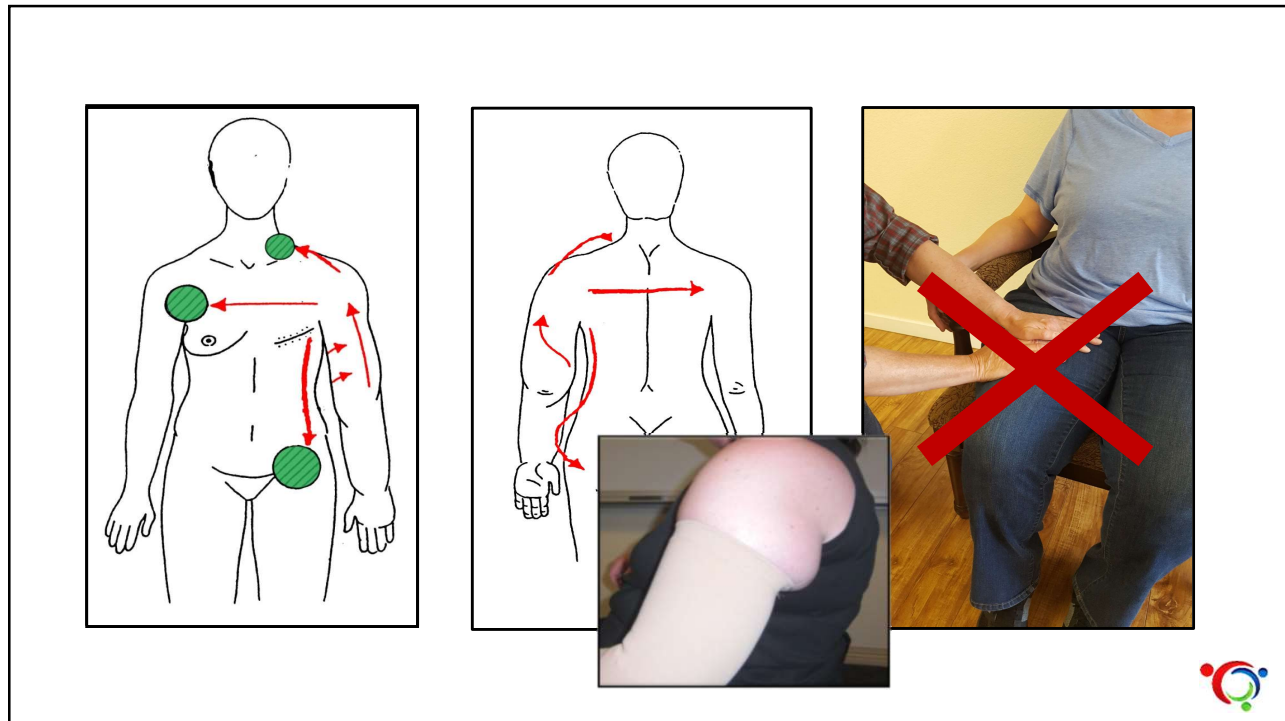
The quality of MLD varies a great deal
from one practitioner to the next:



- Training received
- Therapist passion/enthusiasm
- Time constraints
- Reimbursement issues
- Productivity pressure
- Scheduling issues

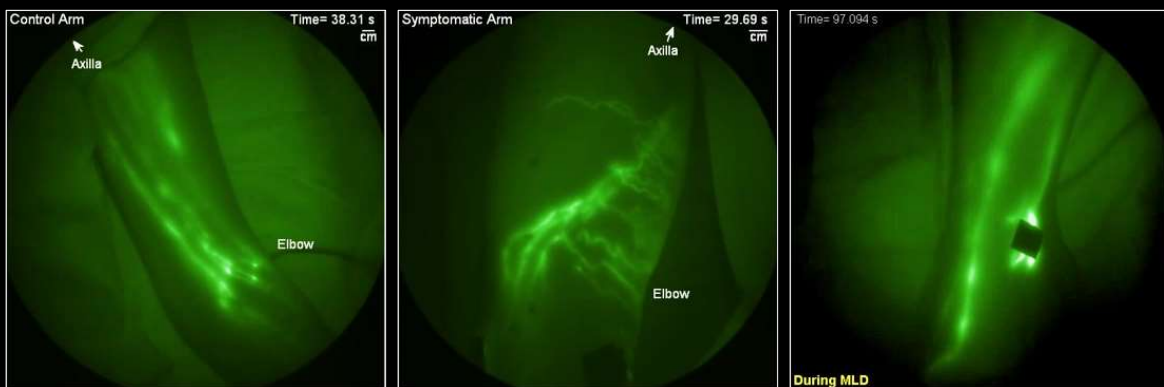


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The Role of ICG Fluorescence Lymphography in MLD



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TECHNICAL ADVANCE

Open Access

A new indocyanine green fluorescence lymphography protocol for identification of the lymphatic drainage pathway for patients with breast cancer-related lymphoedema

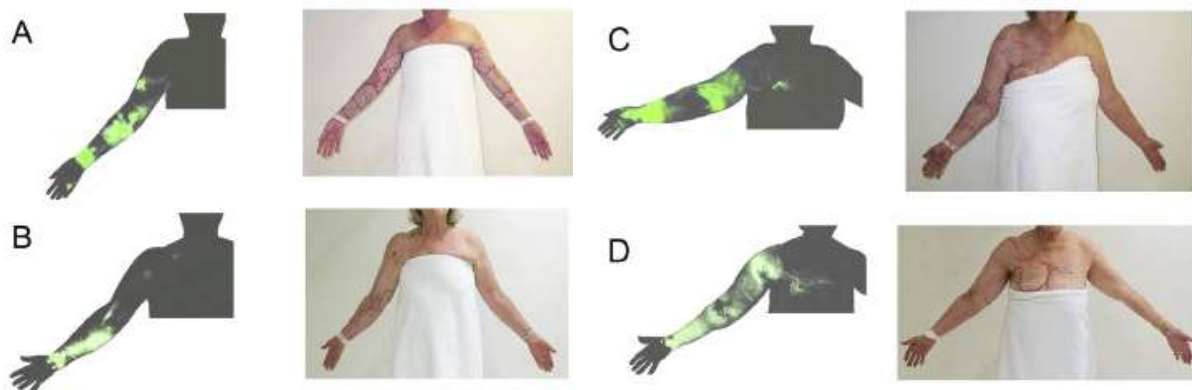
Hiroo Suami^{1*}, Asha Heydon-White¹, Helen Mackie^{1,2}, Sharon Czerniec¹, Louise Koelmeyer¹ and John Boyages¹



Comparison of ICG lymphography, tracing photo and lymphoscintigraphy in the same patient



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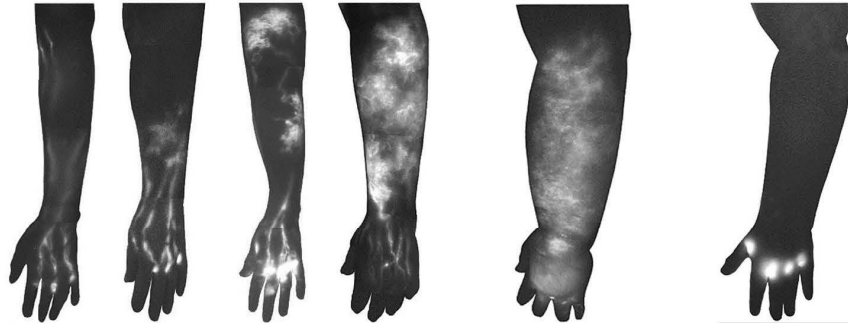
Patterns of drainage pathways in ICG lymphography images (left) and tracing photos (right): A: ipsilateral axilla, B: clavicular, C: parasternal, and D: contralateral axilla



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Development of ICG Lymphography Staging

Indocyanine green lymphography staging scale



Stage	0	1	2	3	4	5
Patent lymphatic vessels	++++	+++	++	+	0	0
Dermal backflow	0	+	++	+++	++++ finger/toe	0
Lymphatic vessel contractility	++++	+++	++	+	0	0

Chang DW, Suami H, Skoracki R. *Plast. Reconstructive Surgery*, 2013
 Nguyen AT, Suami H, et al. *Journal of Surgical Oncology*, 2016



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The Role of IGL to Guide Therapy - Hiroo Suami, MD - Harvard LE Symposium 2018

Breast cancer (N=103)

LYMPHATIC DRAINAGE REGIONS

MDA stage	No.	ICG drainage regions				
		Ipsilateral axilla	Clavicular	Parasternal	Contralateral axilla	Ipsilateral Inguinal
1	19	95%	21%	5%	0%	0%
2	46	61%	52%	7%	2%	0%
3	20	70%	55%	5%	5%	0%
4	18	50%	17%	17%	17%	0%
Total	103	67%	41%	8%	5%	0%

❖ Unspecified: 2 cases in stage 4

Hiroo Suami, MD – Harvard Symposium 2018

ALPST - AUSTRALIAN LYMPHOEDEMA EDUCATION, RESEARCH AND TREATMENT

12:12 / 20:16

YouTube

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ICG Fluorescence Lymphography in Guiding Therapy - Hiroo Suami, MD - Harvard Symposium

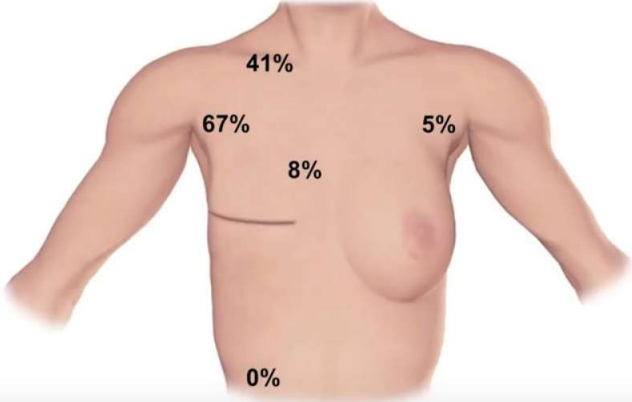
Breast cancer (N=103)

LYMPHATIC DRAINAGE REGIONS

Axillary surgery:

- Axillary dissection: 99
- Sentinel node biopsy: 2
- Unknown: 2

Hiroo Suami, MD
Harvard Symposium 2018



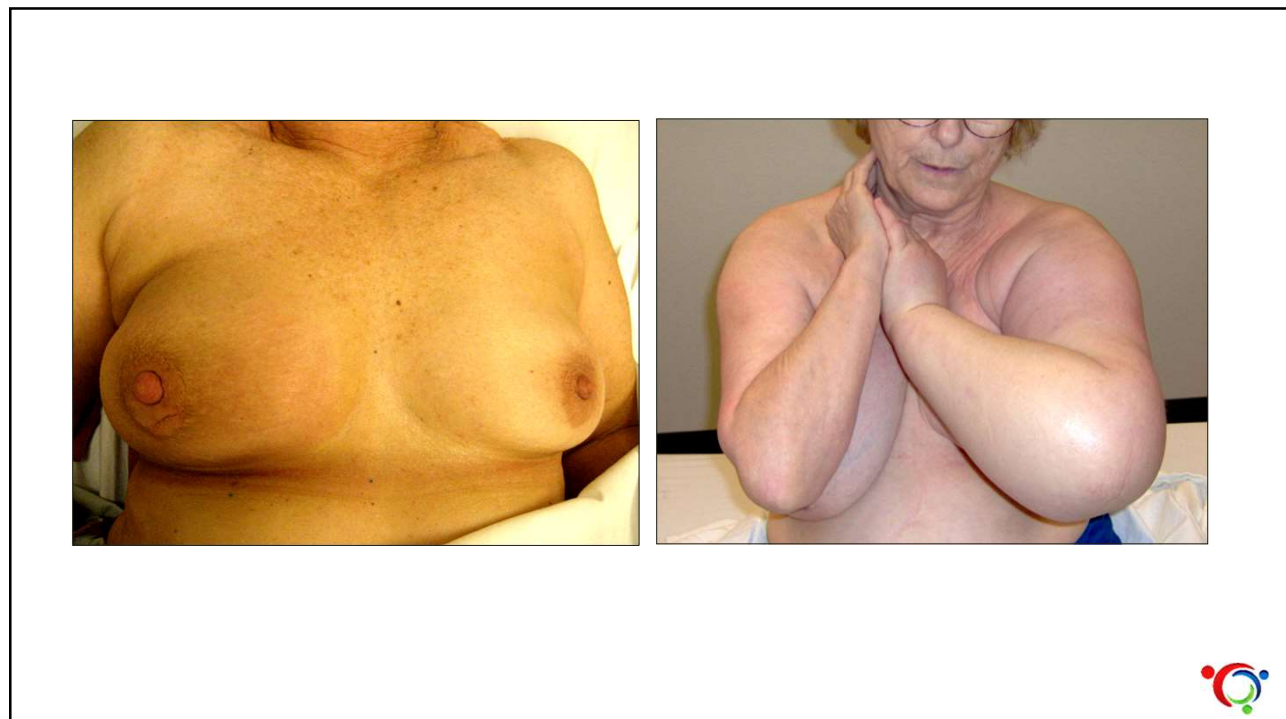
ALERT - AUSTRALIAN LYMPHOEDEMA EDUCATION, RESEARCH AND TREATMENT Scroll for details

11:52 / 20:16

MQ Health
MACQUARIE UNIVERSITY
HEALTH SCIENCES CENTRE

LEARN

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Patient with edema



On intake (1996)



2018



14 yrs. later

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Patient with Primary Lymphedema on Intake (Before CDT)



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Patient with Primary Lymphedema



On intake

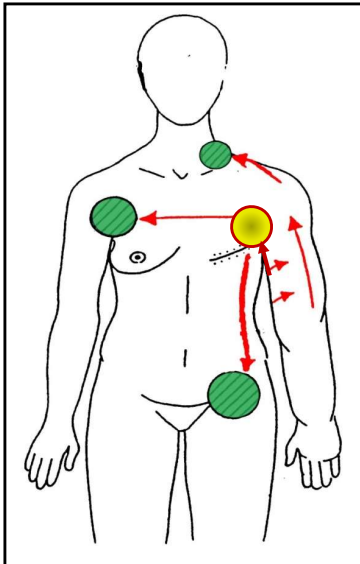


4 months later



1 year later

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ICG-Guided MLD


Data presented at the 2019 KLC, Denver

- 67% of women after axillary dissection still drain to the ipsilateral axilla.
- MLD may be performed more gently and faster in case of patent lymph vessels/drainage.
- MLD should be performed more firmly and slower in areas of dermal backflow.

Louise Koelmeyer, BAppSc (OT)
ALA Accredited Practitioner



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BJC
British Journal of Cancer

www.nature.com/bjc

ARTICLE
Clinical Study

Manual lymphatic drainage adds no further volume reduction to Complete Decongestive Therapy on breast cancer-related lymphoedema: a multi-centre randomised controlled trial

Mette Tambour¹, Marianne Holt², Anette Sørensen³

BACKGROUND: We investigated the effect of manual lymphatic drainage (MLD) vs. without MLD in the management of breast cancer-related lymphoedema.

METHODS: Patients randomised into either MLD or without MLD treatment 2x/weekly for 4 weeks. The primary outcome was volume reduction. The secondary outcomes were volume reduction, heaviness and tension, and health status.

RESULTS: Despite difficulties enrolling patients, 100 patients (50 MLD and 50 without MLD) completed the trial. In both groups (1.0% [95% CI: -4.3;2.3%]); the mean (SE) changes at month 7 were -6.3% (SE 1.2%) and -6.3% (SE 1.2%), respectively. No significant differences with respect to any of the secondary outcomes were found, even to various alternative assumptions.


CONCLUSION: Manual lymphatic drainage does not add further volume reduction to Complete Decongestive Therapy (CDT) in breast cancer-related lymphoedema.

British Journal of Cancer (2018) 119:1213-1220

INTERNATIONAL CONSENSUS


BEST PRACTICE FOR THE MANAGEMENT OF LYMPHOEDEMA

...there is no doubt that they (MLD & SLD) are of immense value in providing psychological and symptomatic benefits.




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MLD alone is **NOT** the treatment for lymphedema!



Patient has been treated with MLD for 10 years



After 3 weeks of CDT (4x/week)

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Take Home Message



- MLD treatment needs to be tailored to each patient's needs.
- Don't shortchange your patients by offering inadequate MLD therapy.
- MLD is, and must remain an integral part of CDT.



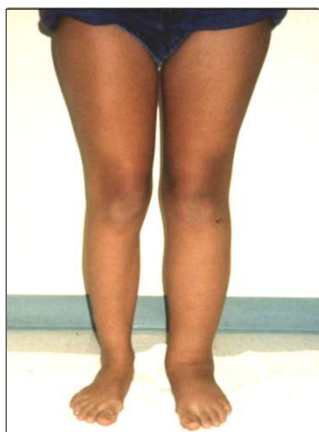
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Effective CDT The Inconvenient Truth



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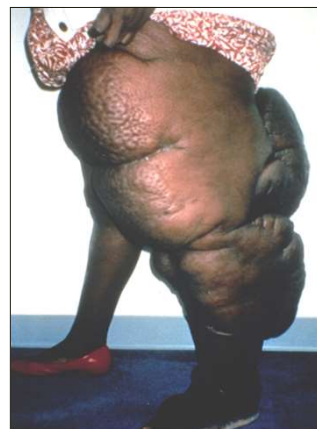
There is no cookie-cutter approach
to the treatment of lymphedema!



Stage 1



Stage 2



Stage 3



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How long does a CDT session
need to be to be effective?



Levels of Evidence for Therapy Question	
Level of Evidence	Type of Study
1a	Systematic reviews of randomized controlled trials (RCTs)
1b	Individual RCTs with narrow confidence interval
2a	Systematic reviews of cohort studies
2b	Individual cohort studies and low-quality RCTs
3a	Systematic reviews of case-control studies
3b	Case-control studies
4	Case series and poor quality cohort and case-control studies
5	Expert opinion



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Effective CDT Phase 1 Schedule

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	⊗	⊗	⊗	⊗	⊗	
	⊗	⊗	⊗	⊗	⊗	
	⊗	⊗	⊗	⊗	⊗	
	⊗	⊗	⊗	⊗	⊗	
			⊗		⊗	

Ineffective CDT Phase 1 Schedule

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	⊗			⊗		
	⊗			⊗		
	⊗			⊗		
	⊗			⊗		
	⊗			⊗		
	⊗			⊗		
	⊗			⊗		
	⊗			⊗		
	⊗			⊗		
	⊗			⊗		
	⊗			⊗		
	⊗			⊗		
	⊗			⊗		

THIS IS
NOT
WORKING

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"During phase I of CDT, the patient must be treated at least once a day. If treatment cannot be given on Sunday, the patient must wear the bandages Saturday until Monday. Twice-a-week treatments are doomed to failure."

Földi's Textbook of Lymphology, 2012

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	Lymphedema Clinic	Hospital
Number of visits per week	5	2
Average total number of visits	13	17
Overall reduction and adherence	+++	+

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Watch Linda's keynote presentation at:
klostraining.com/juzopower2020
 or klostraining.com/klose-videos



Lymphedema Program Growth through Standardization:
Going Back to the Future

The Hartford Treatment Model
 Linda Hodgkins MS OTR/L CLT-LANA



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So, what about:

- My patients don't want to come 5x/week...
- It's not practical for them...
- My Patients don't want to be bandaged...
- My patients can't afford _____.



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Take Home Messages


- To provide effective Phase 1 CDT, patients need to be treated 4-5x/week for 60min each session.
- Patients need to be educated to NOT accept substandard/inadequate CDT!



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Taking a New Look at Lipedema




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Classic Description of Lipedema



- Symmetrical adipose tissue deposition (swelling) of both lower extremities
- Affects mainly women
- Hypersensitivity of the increased subcutaneous tissue
- Develops hematomas very easily
- Adipose tissue is resistant to diet and exercise
- Knee pain is a feature of lipedema
- Orthostatic edema
- May turn into lipo-lymphedema
- Onset during puberty, sometimes after pregnancy

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Stages of Lipedema

Stage I	Skin surface normal, nodular (small) fatty tissue structure	
Stage II	Skin surface uneven (peau d'orange), nodular (big) fatty tissue structure	
Stage III	Lobular deformation due to increase in fatty tissue	(Child 2010)



Schmeller



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What is lipedema?

The disease they call "FAT."



It's not your fault. It's not because of how much you're eating or how much you're exercising. Lipedema is a medical condition that millions of women have inherited.



“ Finding out I have lipedema was more of a relief, it wasn't a scary thing at all. I knew what I had and all I had to do was figure out how to live with it. ”

- Nicole, Stage 2 Lipedema

QUICK FACTS

17 Million Women in US

Almost exclusively in women

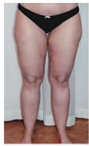
- ✓ An estimated 17M women are struggling with lipedema
- ✓ Lipedema is a chronic condition
- ✓ It occurs across all ethnicities
- ✓ There is no difference in lipedema between men and women
- ✓ It is identical in an unusual pattern of fat distribution
- ✓ As the disease progresses, tenderness, and swelling increase and mobility decreases

With treatment, you can stop the progression



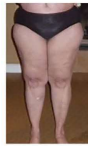
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Lipedema or Lipohypertrophy?



STAGE 1

Skin looks normal, but a spongy consistency is felt when touched.



STAGE 2

Large fat deposits with indentations begin to form on the legs, especially around the knees and ankles.



STAGE 3

Fat deposits on the legs are bulky, hanging over the hips, knees, and ankles. Legs feel stiff and fat beneath the skin feels harder and more fibrous.



STAGE 4

Fat deposits are so large and extreme that the entire lymph system is affected, leading to severe swelling, protruding growths, and even leaking from the skin.

“

The journey to get a diagnosis was frustrating and demeaning. I was blamed and shamed and made to feel I was cheating and that the weight was my own fault.

”

The Friedman Center for Lymphedema Research and Treatment at Northwell Health



The Lipedema Project

The Lipedema Project Global Ambassadors

Australia | Brazil | Canada | Cyprus | Czech Republic | France | Germany | Ghana
Ireland | Netherlands | New Zealand | Spain | South Africa | Sweden | Switzerland
Turkey | United Arab Emirates | UK | USA

LipedemaProject.org | info@lipedemaproject.org

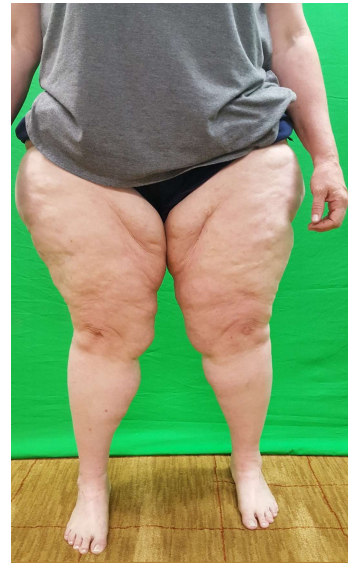
The Disease They Call FAT documentary available DiseaseTheyCallFAT.tv

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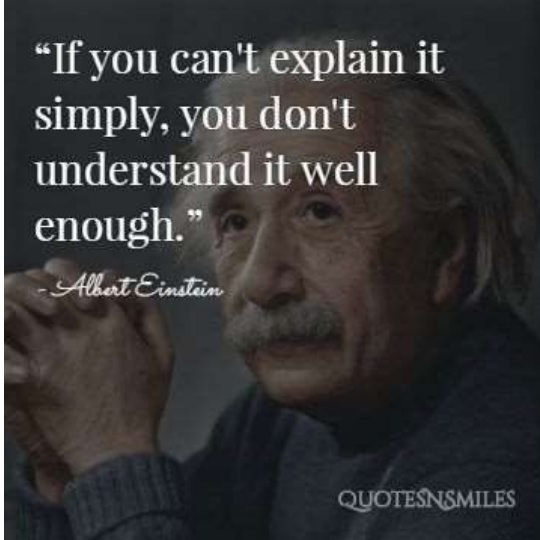


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Lipedema or Lipohypertrophy?



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"If you can't explain it simply, you don't understand it well enough."
- Albert Einstein

QUOTES & SMILES

Lipedema is a very complex condition!

- 1) Physical
- 2) Psychological
- 3) Emotional
- 4) Psycho-Social
- 5) Spiritual
- 6) Cultural



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<p>84 Original Article</p> <p>Lipoedema – myths</p> <p>T. Bertsch¹, G. Erbacher^{1,2}</p> <p>Yölklinik Hirslanden – Europäische Zentren für Lipoedemien, Superzentri (StG)</p>	<p>120 Original Article</p> <p>Lipoedema – myths and facts Part 5</p> <p>T. Bertsch¹, G. Erbacher^{1,2}</p> <p>Yölklinik Hirslanden – Europäische Zentren für Lipoedemien, Superzentri (StG)</p>	<p>188 Original Article</p> <p>Lipoedema – myths</p> <p>T. Bertsch¹, G. Erbacher^{1,2}</p> <p>Yölklinik Hirslanden – Europäische Zentren für Lipoedemien, Superzentri (StG)</p>	<p>Lipoedema – myths and facts, Part 5*</p> <p>European Best Practice of Lipoedema – Summary of the European Lipoedema Forum consensus</p> <p>Lipoedem – Mythen und Fakten Teil 5</p> <p>Streitschrift für eine European Best Practice of Lipoedema – Zusammenfassung des Konsensus des European Lipoedema-Forums</p> <p>Authors</p> <p>Tobias Bertsch¹, Gabriele Erbacher^{1,2}, D. Corda³, R. J. Damstra⁴, K. van Duinen⁵, R. Elwell⁶, J. van Eck-Smit⁷, G. Fauer⁸, S. Jeter⁹, J. Risk¹⁰, A. Fleming¹¹, V. Frankbach¹², K. Gordon¹³, D. Hardy¹⁴, A. Hendricks¹⁵, T. Hirs¹⁶, B. Kow¹⁷, P. Mallinger¹⁸, A. Miller¹⁹, C. Mozzati²⁰, N. Torio-Padron²¹, C. Ura²², S. Wagner²³, T. Zehneger²⁴</p> <p>Affiliations</p> <ol style="list-style-type: none"> 1 Yölklinik Hirslanden – European Center of Lipoedema, Germany 2 IRISmedica San Lufano, Pavia, Italy 3 Center of Expertise for Lymphovascular Medicine, 163 Groninger, Groningen, The Netherlands 4 University Hospitals of North Midlands, UK 5 Zentrum für Gefäßmedizin, Vascular Medicine, Hamburg, Germany 6 Patient self-help organization Lipoedema UK 7 Department of General and Visceral Surgery at the Medical Center – University of Freiburg, Germany 8 Rehabilitation Centre Roade, Amsterdam, Netherlands 9 Harsco Clinic, Clinic for Lipoedema, Lübeck, Germany 10 St. George's Hospital, London, UK 11 Kendall Lymphology Center, UK 12 Praxis für innere Medizin und Gefäßbrunnen, Vascular Medicine, Halle, Germany 13 Klinikum Klagenfurt, Austria 14 Dermatologische Praxis, Berlin, Germany 15 Southampton Freeview, UK 16 Praxisklinik für Plastische Chirurgie, Freiburg, Germany 17 Lymphklinik Wolfberg, Austria 18 Klinik für EBF, Zurich, Switzerland 19 Lymphklinik Wolfberg, Austria 20 St. George's Hospital, London, UK 21 St. George's Hospital, London, UK 22 St. George's Hospital, London, UK 23 St. George's Hospital, London, UK 24 St. George's Hospital, London, UK <p>Additional attendees who signed to the consensus: J. Dabik²⁵, M. W. University of Social Science and Humanities, Warsaw, Poland</p> <p>Key words</p> <p>Lipoedema, paradigm shift, european consensus, therapy</p> <p>Schlagwörter</p> <p>Lipoedem, Paradigmenwechsel, Europäische Konsensus, Therapie</p> <p>* All authors share the first authorship.</p> <p>Bertsch T et al. Lipoedema – myths... Phlebologie 2020; 49: 31-48</p>
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Lipedema – Myths and Facts, Part 5

The term Lipedema is misleading and incorrect!

*There is **no** scientific evidence that...*

- lipedema is an “edema problem”.
- MLD can reduce the patients’ complaints because of its “drainage” effects.
- lipedema is a progressive disease.
- weight loss is not effective.
- lipedema causes lymphedema.
- 11% of the female population suffer from lipedema, or that the onset of lipedema is during puberty.

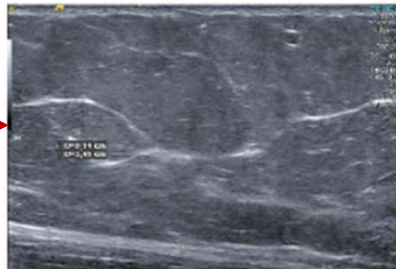


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Lipedema is **not** an “edema problem”



Patient with lymphedema of the distal lower leg and forefoot and lipedema restricted to the thigh and proximal lower leg



Proximal thigh of the patient with typical ultrasound image of lipedema with unremarkable dermis, thickened subcutaneous tissue, and **no evidence of fluid in the soft tissues**

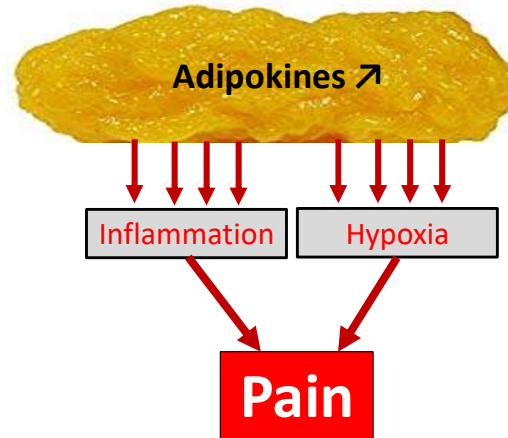


Distal right leg of same patient with typical ultrasound image of **stage 2 lymphedema with partial separation of soft tissues, thickened subcutaneous tissue and fluid in the tissues (small arrows)**

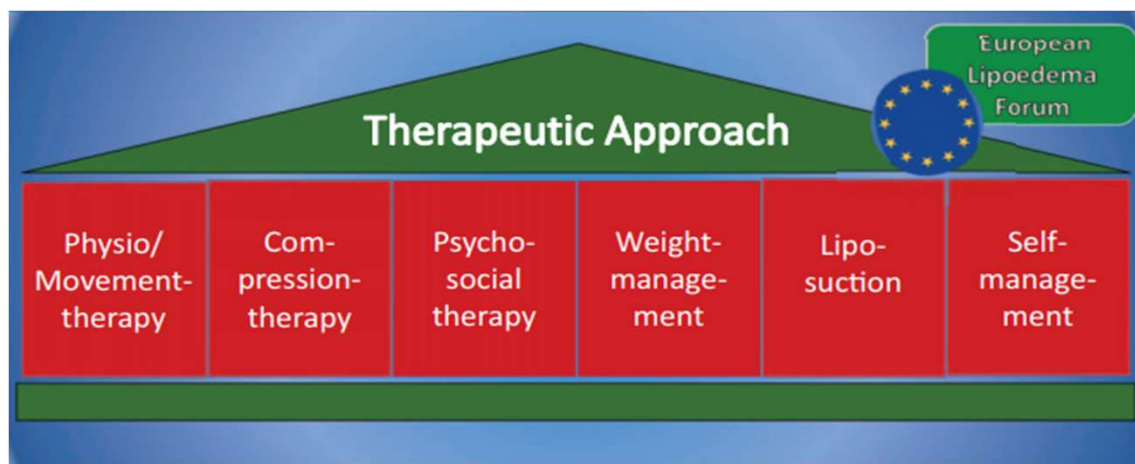


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Causes of the Lipedema Pain



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Main pillars of the therapeutic concept for the treatment of lipedema
(European Lipoedema Forum 2019)



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MLD or no MLD?

Reduce edema – No

Improve subjective complaints – Yes

How about compression therapy?

Reduce edema – No

Decrease inflammation – Yes

Improve microcirculation (hypoxia) – Yes

Decrease subcutaneous pain – Yes

Night compression – No



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MLD or no MLD?

Reduce edema – No

Improve subjective complaints – Yes

How about compression therapy?

Reduce edema – No

Decrease inflammation – Yes

Improve microcirculation (hypoxia) – Yes

Decrease subcutaneous pain – Yes

Night compression – No



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“Compression therapy has always been and still is an important element of Best Practice in the treatment of patients with lipedema!”



53



MLD or no MLD?

Reduce lymphedema – Yes

Improve tissue health – Yes

How about compression therapy?

Reduce lymphedema – Yes

decrease inflammation – Yes

Improve microcirculation (hypoxia) – Yes

Decrease subcutaneous pain – Yes

Night compression – lower leg to knee



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Figure 6. STAGE III LIPEDEMA WITH LARGE DEFORMING FAT DEPOSITS; NOTE SIZE DIFFERENCE BETWEEN UPPER AND LOWER BODY



How about MLD and Compression?

Reduce lymphedema

Yes, but in the context of a multimodal (multidisciplinary) approach

Night compression

YES



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Obesity and Lipedema Obesity is Multi-Factorial

The collage illustrates the multi-factorial nature of obesity and lipedema, showing the interplay of genetic factors (DNA), mental health issues (word cloud), media influence (signpost), and environmental factors like diet and lifestyle (burger, restaurant).



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Obesity and Lipedema

- 80-88% of lipedema patients are obese.
- Being overweight or obese is an aggravating factor of lipedema.
- Majority of patients tried “diet and exercise” and experience a yo-yo effect.
- With lipedema, the advice to lose weight conventionally is particularly pernicious. **95%** of all people who lose weight with the usual conventional diets regain the weight within 3 years.



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- Women (in contrast to men) regain a disproportionate amount of weight in the lower body after weight loss. In other words: every medical recommendation to a lipedema patient to lose weight increases the risk of exacerbating the lipedema.
- Obese patients with lipedema often experience a lack of fitness and mobility
- Lipedema is not usually a progressive disorder! Instead, patients with lipedema experience weight gain (obesity) which can lead to exacerbation of the lipedema.
- Obesity/weight gain must addressed!



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Weight loss is ~~not~~ effective



Lipedema patient (269 lbs., 168 cm, BMI 43) before sleeve gastrectomy.

Same patient 11 months after bariatric surgery. Weight now 163 lbs., BMI 26.

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Weight loss is effective.



A: Patient with lipedema and predominately distal leg edema.

B: Same patient 1 year later, after a gastric bypass.
C: Excess skin with subcutaneous fat.



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Weight loss is effective.



At baseline



After losing 80lbs on Keto



After liposuction



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Weight Management

- Short-term diets must be avoided by all means.
- The concept of energy balance has to be taught.
- Patients must be educated about the inflammatory and anti-inflammatory effects of their dietary habits and food choices.
- To achieve long-term weight stabilization, support and coaching are necessary.



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Measures to Reduce Hyperinsulinemia

- Maintain sufficiently long intervals between meals (4-6 hrs. daytime and at least 12 hrs. nighttime).
- Strictly avoid constant “grazing” (especially sweets).
- Avoid foods containing refined carbohydrates or sugar.
- Eat “real” food instead of processed foods.
- Consume healthy fats and avoid industrial trans-fats.



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Stabilize and Exercise



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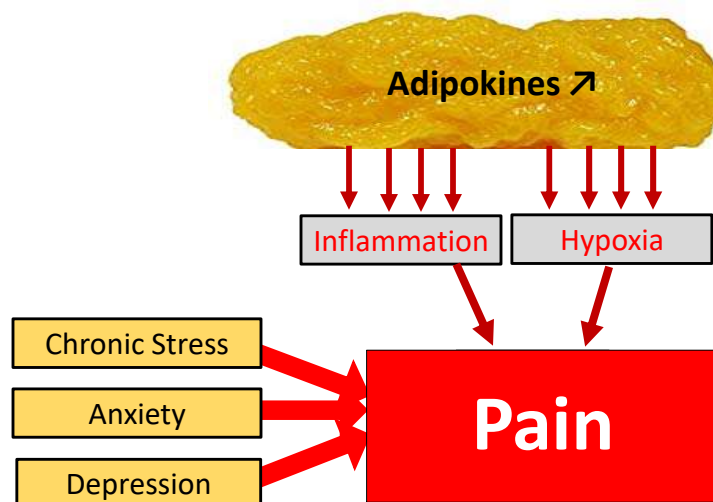
Psychology in Lipedema

- The impact of psychological stress in patients with lipedema is underestimated!
- Psychological vulnerability contributes to the amount of pain perception.



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Causes of the Lipedema Pain



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Psychology in Lipedema

- The impact of psychological stress in patients with lipedema is underestimated!
- Psychological vulnerability contributes to the amount of pain perception.
- Eating disorders are often present and need to be treated.
- Lack of self-acceptance because of current beauty ideal.
- **Psychological assessment is a must!**



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Liposuction

Not every patient with lipedema will benefit from liposuction!

Liposuction may be considered if:

- Symptoms persist despite at least 12 month of comprehensive conservative treatment, as presented above
- The patient has considerable functional disability
- The patient's weight has been stable for at least 12 months
- A preoperative psychological assessment is completed



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Motivation is an essential ingredient for changing behavior.

Self-Management The “Math of Motivation”

The Motivational Matrix:
Motivation = importance¹ x self-efficacy²

Any amount of knowledge multiplied by zero motivation will not change a thing!

High importance of the goal
X
Low self-efficacy

High importance of the goal
X
High self-efficacy

Low importance of the goal
X
Low self-efficacy

Low importance of the goal
X
High self-efficacy

¹ Importance of the goal

² The belief in one’s own ability to achieve the goal

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MasterClass BEYOND LIPEDEMA

TRIBE
FRIENDS
CONNECTIONS
FANS
COLLEAGUES
COMMUNITY
PEEPS
knowledge
kindness
support
comfort
access
LOVE
KETO Welcome
Lipedema Tribe Community

Members only




lipedema-simplified
IT'S NOT OUR FAULT


lipedema-simplified.org



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Knowledge is Powerful Mentoring is Supportive Community is Nurturing



Our Mentors are Here to Help

Catherine Seo, PhD. Founder & Director, Lipedema Simplified

Brenda Gold, BHSc (PT). Physiotherapist & Emotional Freedom Coach


Carol "Rosey" Rowsemitt, PhD, RN, FNP. Obesity Treatment & Thyroid Specialist

Leslyn Keith, OTD, CLT-LANA. Researcher, Lymphatic Instructor, Occupational Therapist

Megan Pfeffer, BHSc. Clinical & Therapeutic Nutritionist

Mende Staggs, BA. Keto Chef & Coach


Raeann Sparks, BEd. Keto & Mobility Coach



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Take Home Messages

- Lipedema is a complex condition.
- Lipedema is not an edema issue.
- Patients with lipedema should be treated in a multi-modal approach.
- Psychological evaluation and weight management must be discussed with each patient.
- Patients must take ownership of their condition/health.



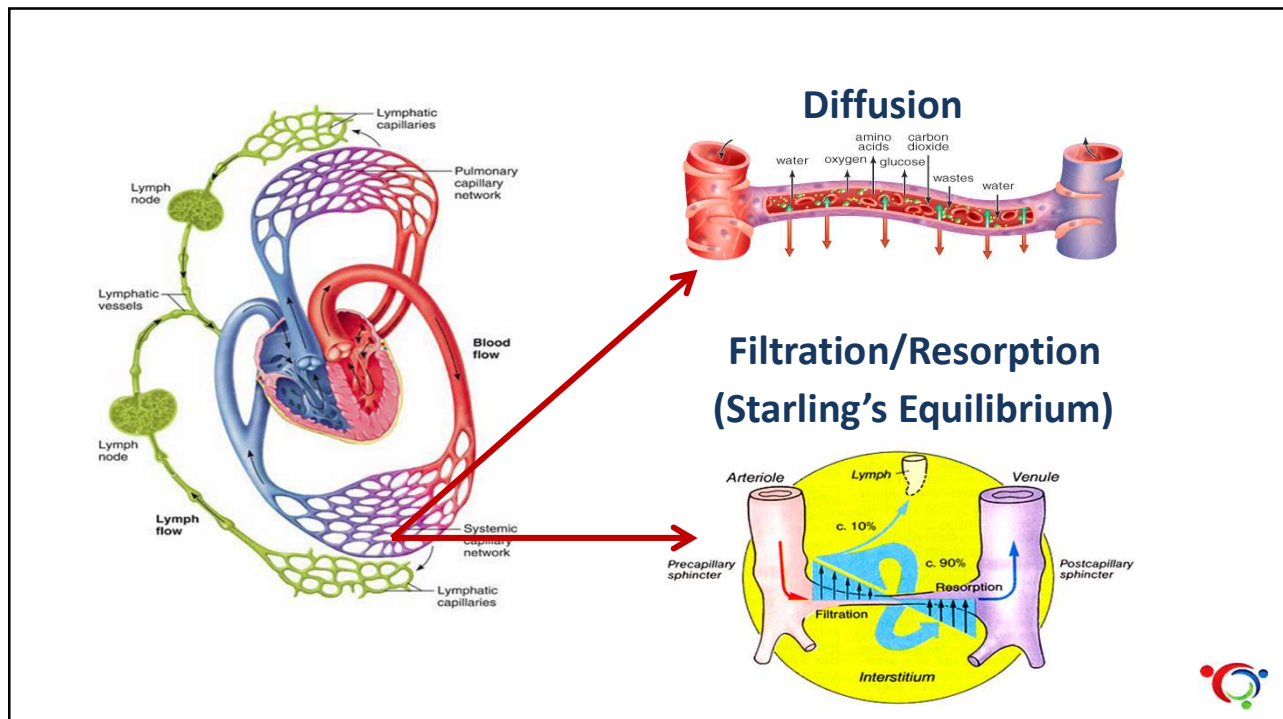
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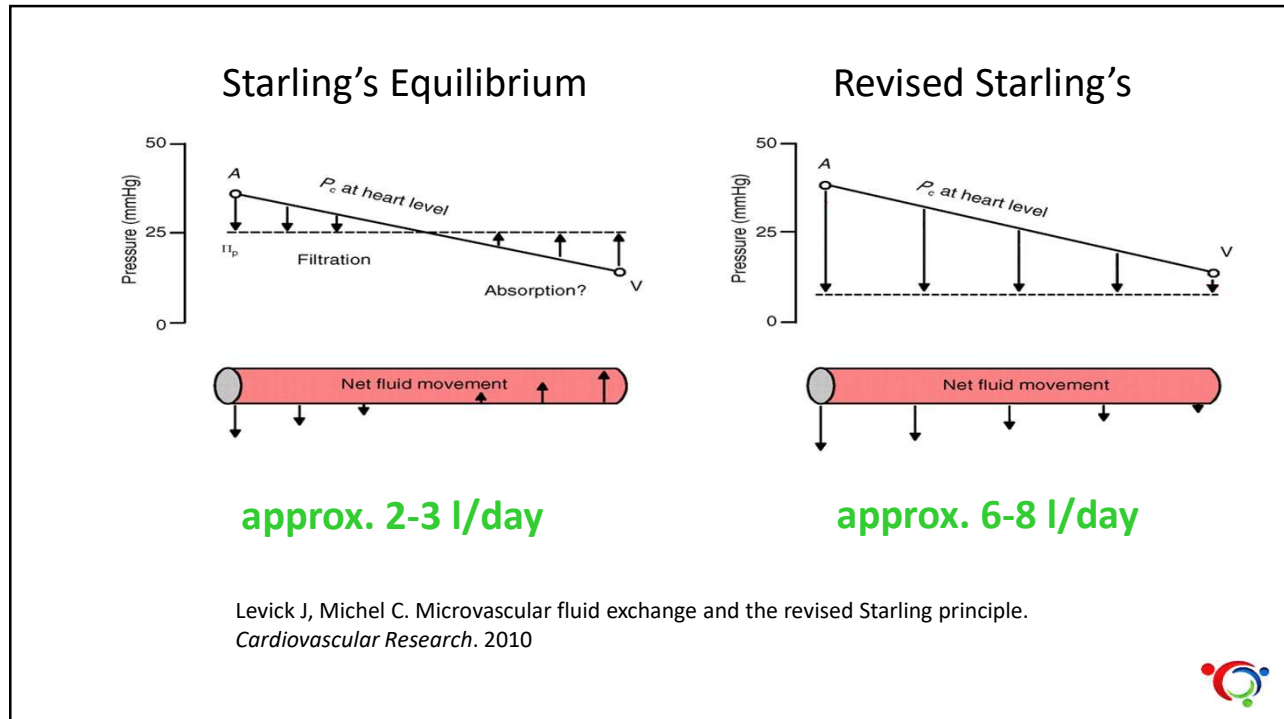
Starling's Law – Its revision and the glycocalyx. A new look at the fluid dynamics on the capillary wall.



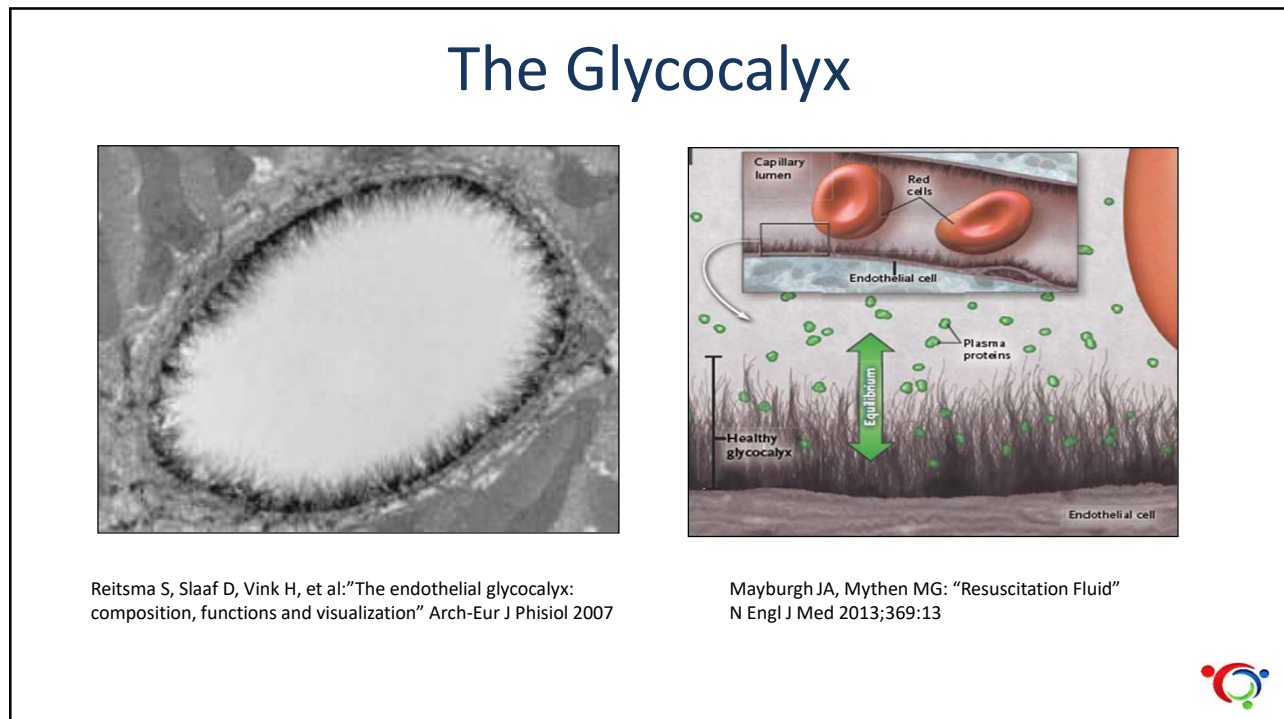
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Watch Dr. Baltazar's presentation at:
klosetraining.com/juzopower2020

Ulises Baltazar
 MD, FACS, CLT

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Take Home Messages



- The glycocalyx is the gate keeper for fluid exchange/controls microcirculation.
- The glycocalyx is a highly complex structure that can be damaged by inflammation and poor nutrition.

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INTERNATIONAL
LYMPHOEDEMA
FRAMEWORK



October 1-3, 2020
Copenhagen

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National Lymphedema Network



San Diego, CA
October 23-25, 2020

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