

# Controlling knee pain without medications or surgery

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- 2017-present: Olympic Medical Home Health
- 2014-2017: Crestwood and Sequim Health and Rehab
- ▶2002-2014: Independence Through PT, Owner Sequim, WA
- ▶2006-2011: University of Puget Sound, Adjunct Faculty
- ▶2007: Clinical Excellence Award, WA State Physical Therapy
- ▶2006: Doctorate in PT, Univ of Puget Sound, Tacoma, WA
- ▶ 1997-2002: Swelling Disorders Clinic developed
  - Olympic Medical Center, Port Angeles, WA
- May 1999: Földi Clinic CDP Certification, Hinterzarten, Germany
- ▶ 1993: Masters in PT, University of Puget Sound, Tacoma, WA
- ▶ 1986: Bachelors of Music Therapy, Willamette U, Salem, OR

#### Disclaimer:

I am providing information for you to use if you wish. I am not acting as your physical therapist. You should continue with your medical team and definitely not stop any medications without your healthcare providers assistance.

The place where two bones come together is called a joint. When the bones are not fitting together properly they can break down the ends of the bones which is called degenerative joint disease or osteorarthritis or arthritis.

When a joint breaks down by creating divots or mountains on the ends of the bone it is thought that the only thing that can resolve knee pain is surgery to replace damaged bone with metal

It makes me sad that I have seen many people over the years who still have knee pain after surgery despite having a metal knee My question is this: If all of the pain comes from the bone breaking down with arthritis how can there be pain if it is now a metal knee?

Many patients over the years have learned specific treatments that reduce joint pain such as knee pain.

The joint is still broken down but the knee pain is gone by improving joint alignment or reducing swelling

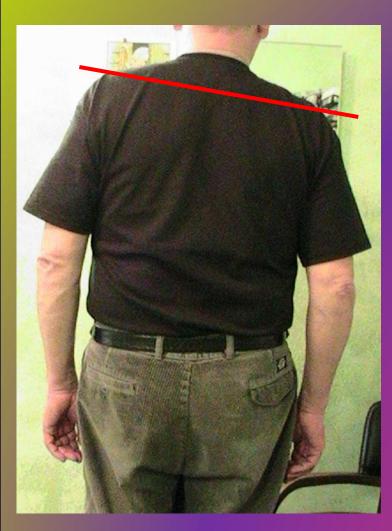
Once you improve joint alignment so the bones fit together better, and/or reduce swelling problems the pain may be gone, but to maintain this for long term you need to continue with those protocols.

### KNEEPAIN CAUSED BY ALIGNMENT ABNORMALITIES OF THE SKELETON





# POOR ALIGNMENT OF THE SKELETON CAN CAUSE BREAKDOWN OF ANY JOINT SUCH AS THE KNEE JOINT





Before and after treatment to improve skeletal alignment. Note shoulders are more aligned





Notice how the natural curve of the spine comes back

Before and after treatment to improve skeletal alignment

## Treatment for abnormal skeletal and therefore joint alignment

Strain and Counter Strain is a highlyspecialized stretching protocol developed by Lawrence Jones, D.O., used to improve skeletal alignment.

Simple home program developed by Loraine called Releasing Joint Restrictions is based on this home program

#### Test for Knee pain

- Establish a baseline or Pretest:
- Find movement or position that makes the knee hurt the worst
- 0/10=none 10/10=worst
- How do you feel in sitting?
- How do you feel in standing?
- How do you feel marching in place?
- How do you feel as you sit down?

## Stretching for knee pain: "horse and thinker"

- Sit down
- Pull knees and feet apart as far as able
- Bend forward at hips (no for hip replacement)
- Rest forearm on Left thigh as if in a THINKER pose (nose toward knee even though photo does not show this)
- Stay for 90 seconds



#### Test knee pain after RX

- After 90 seconds:
- What is the pain level now in each position:
- Sitting
- Standing
- Marching in place
- As you sit down
- If the pain changed this occurred due to the stretch you just did

## Stretching for knee pain: "horse and thinker"

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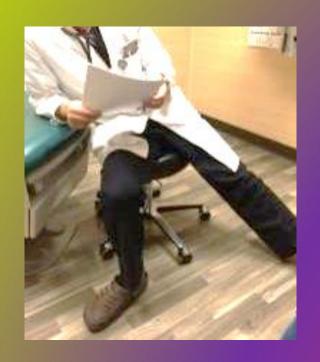
#### Test knee pain after RX

- After 90 seconds
- What is the pain level now in each:
- Sitting
- Standing
- Marching in place
- Sitting down
- If the pain changed this occurred due to the stretch you just did

#### Maintaining Improved Alignment

To prevent pain from poor alignment from returning:

Maintain good posture-keep joints in neutral positions







POOR POSTURE CAN LEAD TO SKELETAL ALIGNMENT ABNORMALITY AND EVENTUALLY BREAK DOWN KNEE JOINT



IT IS VERY HARD
ON A KNEE JOINT
TO BEND BACKWARD





#### Maintaining Improved Alignment

To prevent pain from poor alignment from returning:

Learn to fire the pelvic floor (Kegel exercises) while changing positions

Try to hold back gas or urine while changing positions

Be careful of doing too much too soon when building any muscle, or you can create worse incontinence with the pelvic floor

Loraine has worked since 1993 as a generalist physical therapist

When she came to work at OMC in 1997 she was introduced to specialized treatment of the lymphatic system used to treat patients who developed lymphedema from cancer treatments

She started experimenting with these techniques on swelling from other causes

Patient examples of those treated in the physical therapy clinic using lymphatic system treatments to manage swelling problems

After treatment, note the reduction of swelling-visualization of the hand bones, improved skin color, no indentations at the wrist or back of the hand.

8-17-98 10-27-98



Patient lost 40# after 4w of Treatment (RX) using Manual Lymphatic Drainage (MLD) massage technique and lymphedema compression bandaging



Before Rx



After Rx in Elvarex Stockings





Patient with peripheral neuropathy which is pain + numbness and tingling

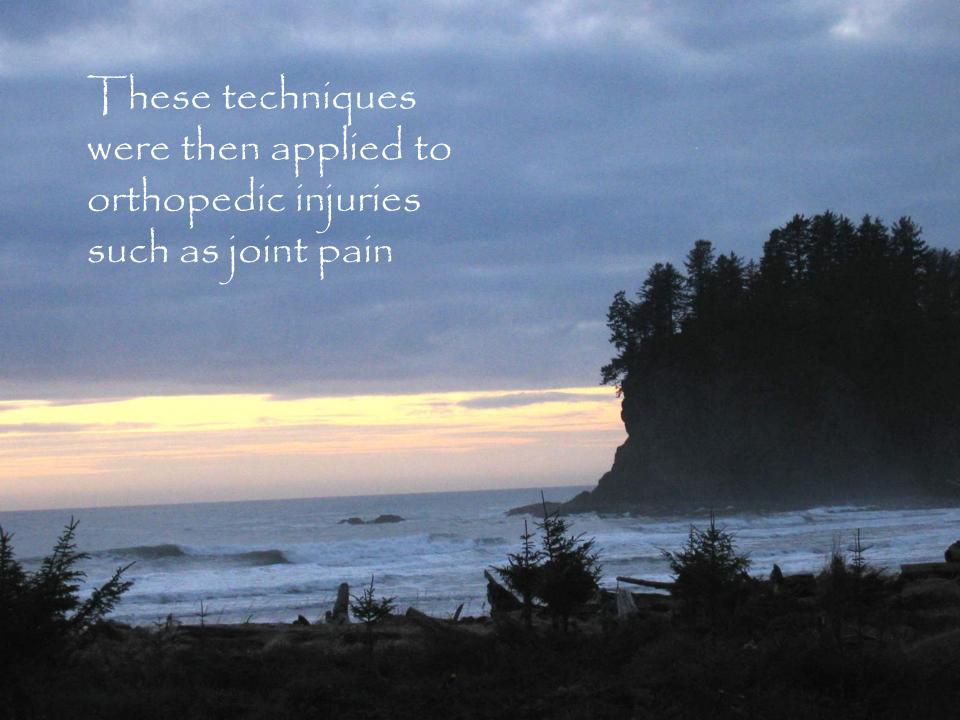
Dermatolyposclerosis = skin with fatty and hardening deposits

With lymphatic Rx completed in 2 weeks

She was pain free

Ignoring Skin tear which occurred due to hitting wheelchair

However, note improved skin quality



#### Case Study

- 78 y/o female
- R knee pain
  - **10/10**
- R hip pain 10/10



- Avascular necrosis (dead hip bone)
  - After "Horse and Thinker" right hip pain 0/10 despite dead bone
- Unable to do hip surgery due to swelling
- Blister right lower leg

Case Study: L leg bandaging RX completed
L leg wearing Over-The-Counter compression stocking;
R leg coming out of wraps after 4 Days
Girth lost: 5 cm (almost 2") each calf
Wrinkles in Right leg from foam are a good sign
Indicates skin moving & lymphatics are now working
Notice improved color of right leg



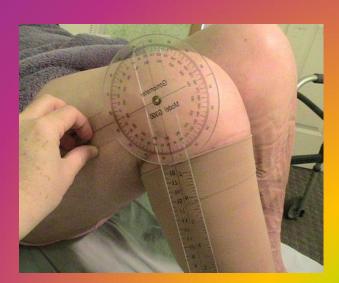
ROM=Range of Motion Higher number better



Bending R knee as much as able shows ROM 67 degrees of bend 10/10 R knee pain. Note red color of lower leg



2 Days in bandages ROM 95 5/10 better color



4 Days in compression sock ROM 100 0/10



Managing Knee Pain Due To Venous And Lymphatic Congestion With A Home Program Of Manual Lymphatic Drainage (MLD) And Over-the-counter (OTC) Compression Stockings

Loraine Lovejoy-Evans, PT, DPT, CLT-Földi Kathie Hummel-Berry, PT, PhD

### Study Components \*3 measurement visits used to establish baseline

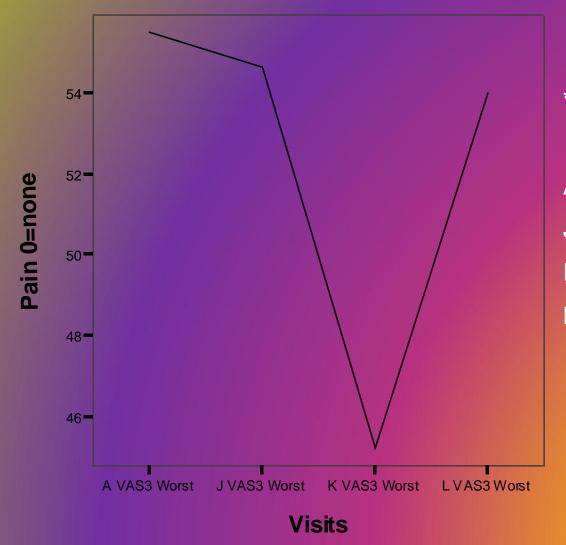
- 3 measurement visits used to establish baseline girth/ROM until stable-then enrolled in study
  - Girth within .5 cm/ROM within 5 degrees
- Measurements repeated after each 2-week phase of study
- 2 Weeks exercise/stretches 2x/day 10 reps:
  - Glut max/glut med/quad; Mini Squats
  - \*Hamstring/gastroc belt stretch x 30 seconds
- 2 Weeks self MLD massage 4x/day + Daytime use of 20-30mmHg Over-The-Counter knee-high compression stockings
- 2 Weeks Withholding all treatment

- Conclusions

  After a home program including use of OTC compression stockings with self MLD 4 times a day for 2 weeks
- 29 Adult Subjects demonstrated:
  - Reduced knee pain intensity
  - Reduced girth (on both legs even the non-painful leg)
  - Increased function

### **VAS at Worst**

Visual Analogue Scale indicative of pain 0-10/10 with 0 being no pain and 10 being worst



Dot/Lines show Means

\*\*\*Lower # better

A=baseline no treatment

**J**=exercises

K=socks & MLD massage

L=treatment withheld

- Signs of Venous insufficiency
- Loraine felt these signs are the suspected cause of knee pain from the resulting edema



Spider veins (teleangiectasias)





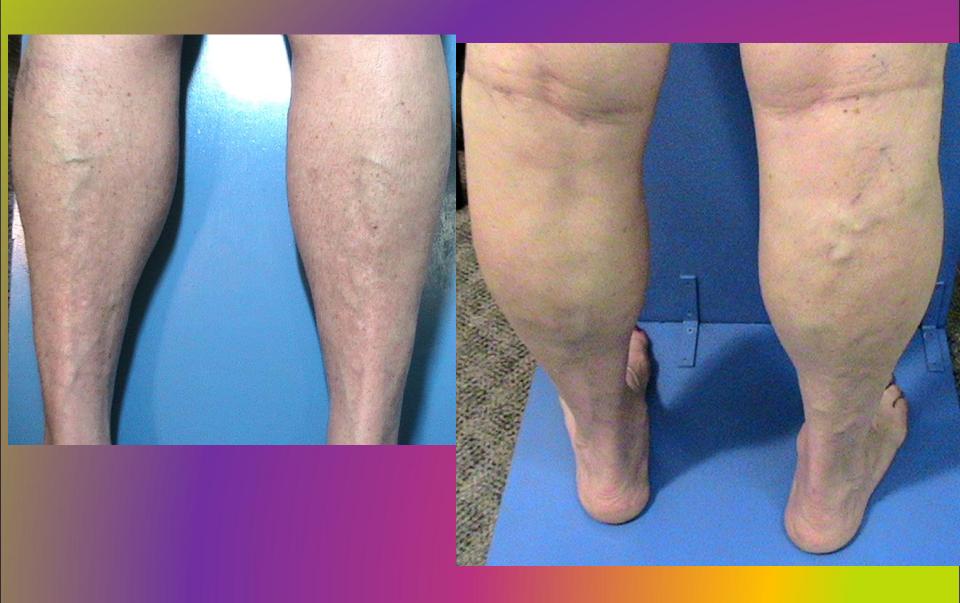
Sock lines indicating edema at both ankles

Decreased hair pattern lower ankle and eventually leg



Venous Stasis
Ulcerations,
healed wounds

### Varicose Veins



## Thickened and Congested Skin





Hemosiderin staining rusty color or redness due to broken down hemoglobulin cells turning to hemosiderin and staining the skin

Increased joint line depth



Shiny, waxy skin

Increased depth of joint lines

# Edema of different sizes



#### Mild Edema



Moderate Edema



#### Severe edema

## Subject Response

42-year-old male

Subjective Chief Complaint: Standing up from sitting

Evaluation 6/10 Exer 5/10 Socks+MLD 3/10





No RX: 9/10

He noted so much pain relief from the socks and massage portion of study his wife had to fight with him during the withholding phase to NOT put the socks back on so he would not ruin study

## 80-year-old female with right knee pain. Chief complaint Walking through Costco

Evaluation 9/10 Exercise 9/10 Socks+MLD 3/10 No RX 8/10

Notice how much more the tendon on the right leg stands out after swelling reduced



## 68-year-old Female chief complaint left knee pain with squatting

Eval 4/10 Exercise 4/10 Socks +MLD 2/10 No RX 5/10









## Today showed very simple examples

- Number of treatments needed depends on severity of problems and ability to learn
- Simple problems take less time
- Multiple problems take more visits
- Most patients ready to manage independently within 2-3 months of specialized physical therapy visits 1-3/week
- Physical therapy costs about 100\$ a visit
- \$3600 for PT versus cost/risks of surgery (avg: \$49,500)

#### What if it is bone on bone?

- I had a patient who has x-rays of her hip and knee that show both to be bone on bone with arthritis
- She saw the orthopedic surgeon who does not want to do surgery because she is controlling her pain with her home PT program
- She is also now independently managing knee, hip, foot and hand arthritis pain; neuropathy-pain and numbness in her feet; and incontinence after 3 months of PT

## Getting more help if needed

- If you do something with early signs of problems you will need to do less
- I hope these tools will be enough or look at my website: doctorlovejoyevans.com
- You can find physical therapists who know how to treat lymphedema and to improve skeletal alignment with Strain and Counter Strain
- You will need a referral from your doctor
- Medicare and most insurances typically cover physical therapy

## Handout on Total Knee Replacement and the lymphatics

