

FMT Rock Pods

Myofascial Cupping Practitioner Course

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Hello my name is

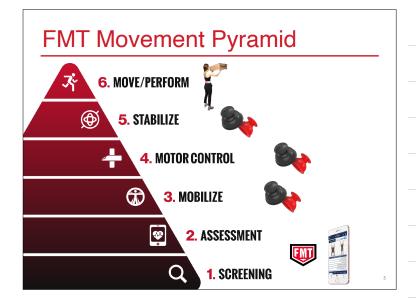
Name Alphabet Soup

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FMT Core Concepts



- 1. Movement Matters.
- 2. Exposure Therapy Less May be More
- 3. Brain Based Approach to patient/client care.
- 4. BioPsychosocial Approach to Pain.
- 5. Screen/Re-Screen.
- 6. Concepts vs. Protocols.
- 7. Human GPS planes, joint by joint, skin, fascia
- 8. Evidence Informed.
- 9. Dosage Matters.
- 10. Ancora Imparo

History of Cupping Decompression Effect Research Treatment Considerations Exposure Therapy Cupping Techniques Out of the Box Thinking

Movement Matters



TOUCH

TOUCH MOVE

Multi Modal Approach



1

Cupping Therapy

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Traditional Types of Cupping

- Flash Cupping cups are <u>applied and removed</u> in quick succession in order to create an effect on pain without a reactive effect on the skin
- Dry (Static/Fixed) Cupping is probably the method most often employed.
- 3. **Wet Cupping** is also called **Hijama**. After using dry cupping for up to 5 minutes, the therapist will make <u>small incisions</u> in the area. The cup is prepared once again and applied to the affected area. Blood will be drawn out of the body in the vacuum.
- 4. **Massage Cupping** (also known as glide cupping) involves moving the cup over the affected area, such as the back, to combine both massage and cupping, this effectively causes a myofascial release.

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Mechanisms

Under the Cup Analysis







What does it mean?

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Injury or Healing?



- 1. Mechanical Effects
- 2. Fluid Dynamic Theory
- 3. Neuro-Chemical Effects

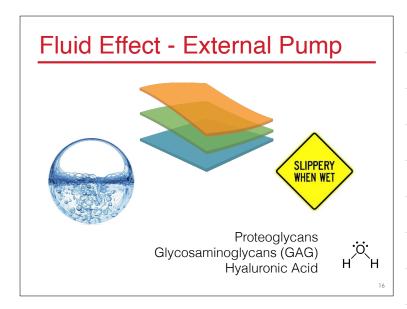
Gif - Leroy Patterson

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Mechanical - Creating Space Decompression Superficial Fascia Deep Fascia

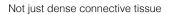
Separating Layers

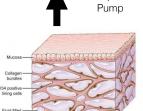
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What's its Relevance?







Decompression

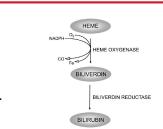
Lattice work of fluid channels Communicating network Shock Absorber

Petros C. Benias, Rebecca G. Wells, Bridget Sackey-Aboagye, Heather Klavan, Jason Reidy, Darren Buonocore, Markus Miranda, Susan Komacki, Michael Wayne, David L. Cam-Locke & Neil D. Theise. Structure and International Professional Community of the Community of

Neuro-Chemical Response



Neural Response



Chemical (Enzyme) Response





Neural Response

Talk to the Brain



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Haptic (Touch) & Visual Cueing

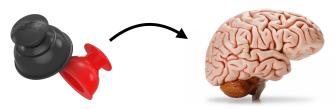
Haptic Cueing is the mechanism by which signals are detected by our skin and the sense of touch is used to provide spatial orientation and situational awareness in motion detection.

A **Visual Cue** is a signal and reminder of something; aiming to be self–explanatory and preattentive, it brings to mind knowledge from previous experiences providing a framework for its own interpretation

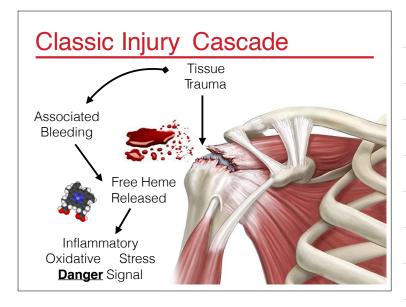


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Precision Training



Improve Sensory Map Change Body Awareness Decrease Pain Improve Motor Control





Excessive Free Heme



Excessive Oxidative Stress Excessive Inflammation Increased Fibrosis

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The Solution

A <u>Buffering</u> System = Heme-Degrading Enzyme



Heme Oxygenase HO-1



Free Heme

Injury Buffering System via HO-1



Heme-Digestion Byproducts

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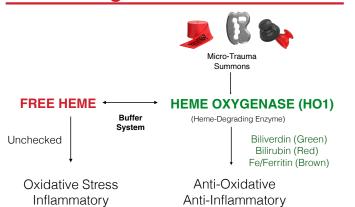
Chemical Response

Enzymatic Effects of Cupping Therapy



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Heme Degradation Cascade



Pro-Healing

**DANGERSIGNAL

Cupping Response Summary





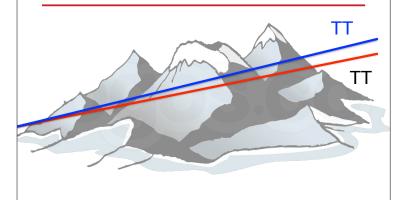


Bruising - Good/Bad?



Neither Graded Exposure Concept Person Attached to Tissue 28

Tissue Tolerance



Explain Pain - Moseley/Butler

Minimum Effective Dose



The smallest dose that will produce a desired outcome.

3

Research

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Research

Limitations: most studies don't include proper control groups and thus cannot rule out a <u>placebo effect</u> **Reality:** The therapeutic effects of cupping remain controversial

Bottom Line: Generally considered safe, lest the possible bruising, if applied by trained professional

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Cupping + Athletes - SR of RCT

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- Eleven trials with n = 498
 participants from China, the
 United States, Greece, Iran,
 and the United Arab
 Emirates were included
- No explicit recommendation for or against the use of cupping for athletes can be made

Systematic Review

Review Article
Cupping for Treating Pain: A Systematic Review

Jong-In Kim, 1,2 Myeong Soo Lee, 1,3 Dong-Hyo Lee, 1,4 Kate Boddy, 3 and Edi

Conclusions:

Results of our systematic review provide some suggestive evidence for the effectiveness of cupping in the management of pain conditions

Limitations:

RCTs included in the analysis and the methodological quality were too low to draw firm conclusions

Acute/Chronic Pain - SR Study





Cupping therapy for acute and chronic pain management: a systematic review of randomized clinical trials

Huijuan Cao $^{\rm o}$, Xun Li $^{\rm o}$, Xue Yan $^{\rm b}$, Nissi S. Wang $^{\rm c}$, Alan Bensoussan $^{\rm d}$, Jianping Liu $^{\rm a, e}$

Review of 16 Trials concluded that.....

"at least moderate evidence that cupping is more efficacious than no treatment or other treatments (such as heat therapy, usual care, and conventional medications) in reducing pain over the short term."

Chronic Neck Pain

Research Article
The Effect of Traditional Cupping on Pain and Mechanical
Thresholds in Patients with Chronic Nonspecific Neck Pain:
A Randomised Controlled Pilot Study

Conclusion.

A single application of traditional cupping might be an effective treatment for improving pain, quality of life, and hyperalgesia in CNP

Lower Back Pain

A Pilot Study Analyzing the Effects of Chinese Cupping as an Adjunct Treatment for Patients with Subacute Low Back Pain on Relieving Pain, Improving Range of Motion, and Improving Function

Alycia Markowski, DPT, MPtySt, CCS, Susan Sanford, PT, LAc, MAc, Jenna Pikowski, DPT, Daniel Fauvell, DPT, David Cimino, DPT, and Scot Captan, DPT

Conclusions:

Chinese cupping may be a low-risk, therapeutic treatment for the prompt reduction of symptoms associated with subacute and chronic low back pain. Cupping may allow patients to progress to functional movement training in a timely manner by promptly reducing pain and muscle tenderness and improving range of motion.

Heme Oxygenase (H0-1) and Repair



Upon injury, **free heme** is released from hemoproteins, causing **accelerated oxidative stress** of local proteins, further damaging cells and tissues. Heme also has pro-inflammatory properties

Increased heme levels have also been associated with fibrosis formation

It is thus of importance to control the levels of free heme at sites of injury.

Accumulating data demonstrate that the HO enzymes execute anti-inflammatory, antiapoptotic, and anti-proliferative functions through the effector molecules generated by heme catabolism

The Cups

Silicon Cups - Benefits

- Easy to Clean/Disinfect
- Each to Apply Plunger
- Moldable to Various Body Parts
- Various Decompression Levels
- Different Sizes/Colors
- · Carrying Case for Portability





RockPods - 2 Sizes



Small

Large

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Cleaning Cups

Silicone has low toxicity and low chemical reactivity with lotions and creams. Silicone is non-porous so it will not support bacterial growth. In addition, silicone cups are odorless, non-shattering, watertight and hygienic as they are easy to clean.

Generally speaking, if cupping is performed on intact skin only, cups can be treated as **noncritical reusable medical devices** that need to be cleaned and then disinfected with an appropriate low-level disinfectant.





Skin Prep - Optimal Suction Effect



Hair length



Increased tissue temperature



Emollient



Mold to Body Contour

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Non Negotiable

COMFORT SAFETY PRACTICAL

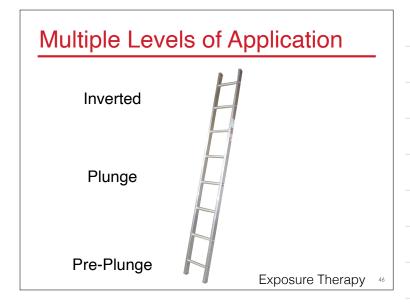


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Exposure Therapy

Remember, you are working on a person attached the tissues





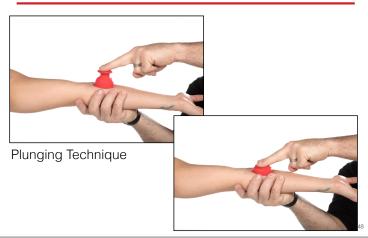
Pre-Plunge Method





Pre-Plunge Prior to Application 47

Plunge Method



Inversion Method



Greatest Vacuum Effect

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Inverted Method



Inverted cup

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Inverted Method Application



Apply convex surface to target area - press down on edge create vacuum.

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Treatment Considerations

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Indications

- Decreased pain
- · Promotion of healing
- · Improved blood flow
- Improved range of motion
- Manipulate dermal/sub-dermal connective tissue
- Neuro-sensory stimulation (Novel Stimulus)



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Contraindications

- Over areas of broken skin (open wounds) or rashes severe edema (swelling), or otherwise fragile skin
- Areas where there are large blood vessels
- High fever with convulsions.
- Bleeding disorders
- Pregnant women should never have cupping on the abdominal and sacral area.
- Varicose Veins
- · Dermatitis and Eczema
- Hernia
- Severe health issues (CHF, Renal Failure)
- Areas near large veins such as groin region
- Infections
- Systemic inflammatory conditions (RA)
- · Over the scalp



Screen/Re-Screen

Check your work



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Screen/Re-Screen Model

- 1. Pain Perception
- 2. Range of Motion
- 3. 2 Point Discrimination (Mapping)



- 4. Function Balance, Reaction Time, Motor Control, etc
- 5. Tissue Glide/Pliability MSK Ultrasound

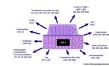
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Possible Mechanisms

1. Mechanical Decompression - space acquisition



 Neuro-Chemical Effects - cascade of neurochemical responses to mechanical stimulation



 Neurosensory Effects - improved body awareness, decreased smudging, improved tactile acuity, perception and control

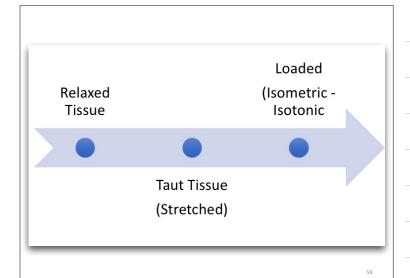
What we want to take advantage of

Exposure Therapy

Remember, you are working on a person attached the tissues

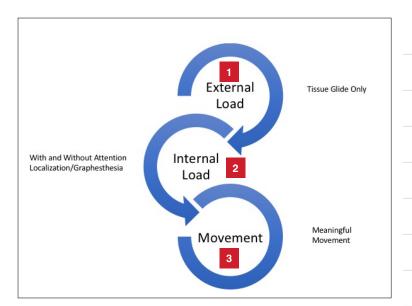


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Position Progression





Treatment Methods

External Glide

- Optimal Treatment <u>Vectors</u> (linear, torque, etc)
- Position Progressions (relaxed, lengthened, loaded, meaningful)

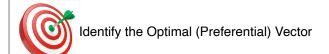
Internal Glide

- Open and Closed Chain (weight bearing)
- Functional Patterns (tri-planar)

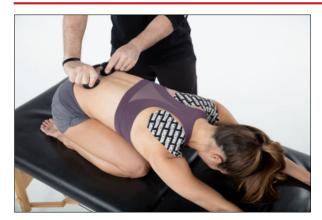
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External Glide Vectors

1.	Longitudinal	——
2.	Shearing	
3.	Unloading	
4.	Rotational Shearing	(Door Knob)
5.	Flattening	



External Glide - Horizontal Glide



Medial/Lateral Linear Glide

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External Glide - Vertical Glide



Superior/Inferior Alternating Vertical Glide

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External Glide - Torque



Door Handle Method

External Glide Case Study



Note: Directional Preference + Communication

External Glide Treatment Vectors

Cupping Mobilization:

Mobilization: A manual therapy technique comprising a continuum of skilled passive movements to the SCINT complex that are applied at varying speeds and amplitudes, that may include a small-amplitude/ high velocity therapeutic movement (manipulation) with the intent to restore optimal motion, function, and/ or to reduce pain.

Mobilization Grades

Grade I - <u>Small amplitude</u> rhythmic oscillating mobilization in early range of movement

Grade II - <u>Large amplitude</u> rhythmic oscillating mobilization in mid-range of movement

Grade III - Large amplitude rhythmic oscillating mobilization to point of limitation in range of movement

Grade IV - Small amplitude rhythmic oscillating mobilization at end-range of movement

Grade V (Thrust Manipulation) - Small amplitude, quick thrust at end-range of movement

Ref: Maitland 69

Internal Glide Examples









- Cup + Movement creating internal shearing effect
- Reinforces the safety/comfort with once painful pattern

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Touch can Move Us

- 1. Instrumental Touch manual therapy
- **2. Affective Touch -** communicate, comfort, support (expressive touch)
 - · Establishing a sense of body ownership
 - · Reinforcing pain free movement potential
 - Coupled with reassurance by the therapist

Aeon - "touch is a language we cannot afford to forget"

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Find What "Moves" Them



Bio/Psycho/ Social

Changing Behaviors



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Graded Exposure

- 1. Comfortable 3 Levels of Vacuum
- 2. External Glide Mobilization Vectors/Grades
- 3. Internal Glide Meaningful Patterns
- 4. **Patient Position** Progressions/Regressions
- **5. Dosage -** 3-90 secs
- 6. Education/Encourage Psycho/Social

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Strategies

RockPod Strategies

- Flash Cupping Therapy cups are applied and removed in quick succession in order to create an effect on pain without a reactive effect on the skin
- Dry (Static/Fixed) Cupping Therapy is probably the method most often employed.
- 3. Sensori-Motor Retraining
- 4. Tweak Cupping Therapy (Cupping with Meaningful Movement)
- 5. Nerve Entrapment Cupping Therapy
- 6. Scar Manipulation Cupping Therapy

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Order - Less is More Approach

- 1. Flash Cupping Therapy 5 seconds per site in series
- 2. Static Cupping Therapy 30-90 seconds per site
- 3. Massage "Cupping" Therapy:
 - External Glide Multi-Directional/Vector
 - Internal Glide
 - Local + "Ripple" Applications

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Dry Cupping With Movement

Dry Cupping



Apply cups over <u>target area</u> and neighboring regions <u>(ripple)</u> to aid in pain mitigation and mobility enhancement.



Vacuum Dosage: 30-90 Seconds

Note: <u>Some</u> skin/tissue response may be observed (<u>non tender</u> bruising) 79

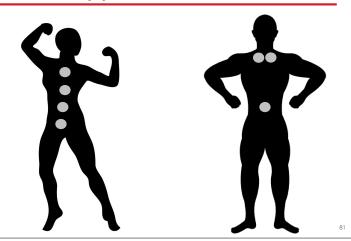
Treatment Considerations

- 1. Comfortable 3 Levels of Vacuum
- 2. External Glide Mobilization Vectors/Grades
- 3. Internal Glide Meaningful Patterns (pain free)
- 4. **Patient Position** Progressions/Regressions
- 5. Dosage: 3-90 Secs (Zein-Hammoud, Standley)
- 6. **Education/Encourage** Psycho/Social

Manal Zein-Hammoud, PhD, Paul R. Standley, PhD. Modeled Osteopathic Manipulative Treatments: A Review of Their in Vitro Effects on Fibrobla Tissue Preparations J Am Osteopath Assoc. 2015;115(8):490-502

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Trunk Applications



Low Back App



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External Glide Techniques



Treatment Vector

Mobilization Grade

Grade I - Small amplitude applied at beginning of ROM

Grade II - Larger amplitude applied from beginning ROM to middle of joint ROM

Grade III - Large amplitude applied from middle of joint ROM to beginning of restriction

amplitude to the restricted part of oint applied again tissue resistance

Position Progressions



Internal Glide - Sagittal Plane



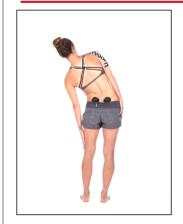




Functional/Meaningful Movements - Internal Glide

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Internal Glide - Frontal Plane





Make it Meaningful

Internal Glide - Transverse Plane





Low Back App - Therapy Assisted





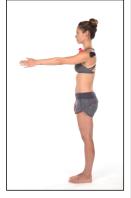
External Glide - Optimal Vector Patient Position - Meaningful?

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Shoulder App with Movement







Therapist Assisted Mobilization



Augmented External Glide (therapist)
Regressed Patient Position - Neutral
Decreased Smudging - Gamifaction

Knee App with Movement





Open Chain

Sensori-Motor Retraining with Cups

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Internal vs. External Cueing

- Internal cue: The individual focuses on his/her body parts and how they move.
- External cue: The individual focuses on affecting something in his/her environment. He/she focuses on the outcome of his/her movement.

Example:

- · Jumping Movement
 - Internal Cue Explode through hips
 - External Cue Touch the Sky

Cueing

Internal Cueing

- Big chest (deadlift, snatch, clean and jerk, bench press)
- Tuck your elbows (bench press)
- Push through your heels (squat)
- · Knees out (squat)
- Pull the hips through (deadlift)
- Shoulders back (bench)

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Cueing

External Cueing

- · Stretch the front of your shirt
- Push the floor away
- · Break the bar

Generally More Effective in Cueing Movement

- · Spread the floor
- Bring "red cup" towards "black cup"
 - · A version of an external cue

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Sensori-Motor Retraining



Bring the **red cup** toward the **black cup**:

- Visual Cue
- Tactile (Haptic) Cue

Connect the Dots

Connect the Dots





Scapular Retraction





Connect the Dots



Scapular Depression/Retraction





Dorsi-Flexion (Foot Drop Correction)





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Thinking out of the Box



How would you use cups as a corrective tool?

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Nerve Entrapment Cupping

Mechanism



Decompression Effect



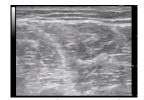
Pain Mitigation

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Decompression with Cups







External Glide with Cup's

Tibial Nerve Mobilization





Clinical Relevance: Plantar Pain, Weakness of Foot Muscles, Parathesia (foot/toes)

Tibial Nerve - Therapy Assisted



- Optimal Skin Glide Vector -External
- Add Internal Glide as tolerated (neuro-mobilization)
- Make it meaningful

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Sciatic Nerve Mobilization



Clinical Relevance: Weakness, Numbness, Shooting Leg/Back Pain, Tingling

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Sciatic Nerve - Therapy Assisted



Optimal External Glide



Internal Glide Movement 108

Saphenous Nerve Mobilization



Clinical Relevance: Groin, Knee, Medial Shin/Ankle/Foot Pain, Numbness

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Femoral Nerve Mobilization



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Lat Femoral Cutaneous Nerve Mobs



Clinical Relevance: Tingling, numbness, during pain in the outer part of thigh

Median Nerve Mobilization



Clinical Relevance: Loss of abduction and opposition (thenar), sensory loss and weakness in forearm pronation and wrist/finger flexion

Radial Nerve Mobilization



Clinical Relevance: Sharp/Buring Pain back of hand. Numbness/Tingling and difficulty straightening the arm

Supra scapular Nerve Mobs



Clinical Relevance: Weakness/atrophy (supra/infra), burning pain to neck, back or arm. Loss of shoulder function.

Scar Manipulation Cupping

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Screening Scar Mobility





Vertical Vector Screen

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Vertical Mobilization





Medial/Lateral Skin Screen





Med/Lat Mobilization





Alternating Vectors

Tissue Separation - Flattening





Keloid (raised scar) Formations

Door Knob Method





Torque Vector - Complex Scar Formation

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Summary

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How did we do?

- 1. Define, understand and integrate the myofascial sequencing model
- 2. Discover and explore neuroanatomy of the dermal & fascial subsystem
- Recognize and demonstrate a novel skin/fascial/movement screening process
- 4. Describe and interpret the research as it relates to connective tissue gliding, pain modulation, and movement therapies.
- 5. Define, practice, and integrate myofascial cupping techniques related to soft tissue pathology as it relates to tension/decompression, direction, external cueing and pressure.
- 6. Compare, contrast and perform various methods of current rehabilitative treatment techniques with RockPods.



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Thank you

fmtplus.com pesi.com soundsportsimaging.com www.zhealtheducation.com

FMT - Functional Movement Training Certifications







































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