OMT For Osteoarthritis and Chronic Low Back Pain

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Learning Objectives

This activity will improve your ability to:

Perform effective and practical osteopathic manipulative treatments to manage pain for patients with osteoarthritis (OA) and chronic low back pain (CLBP)
From an Osteopathic standpoint, what areas should be examined on presentation?
Mrs. P Case – Knee Osteoarthritis

Knee –
  ◦ Including Tibia, Fibular head, Patella

Hip –
  ◦ Including ROM, tight Hamstrings/IT bands, sartorius, quadriceps

Foot/Ankle -
  ◦ Including dorsi/plantar flexion, pes planus/cavus
POOR FOOT ALIGNMENT
CAUSED BY DROPPED ARCHES, FLAT FEET, PRONATION

CORRECTED POSTURE
Mrs. P Case – Knee OA
**Mrs. P Case – Knee Osteoarthritis**

**Knee Articulatory** –
1. Lift distal femur with cephalad hand and slightly flex the knee
2. Hold the anterior tibia just below the tibial tuberosity with your caudad hand
3. In one smooth motion, slowly flex and rotate the tibia into its direction of restriction and extend the knee
4. Repeat 3-5 times or until mobility returns
Mrs. P Case – Knee Osteoarthritis

Fibular Head Muscle Energy –
1. Flex the knee to 90 degrees
2. Pull/push the fibular head into restricted barrier while dorsiflexing the foot to increase restriction
3. Ask the patient to plantar flex the foot against your equal resistance for 3-5 seconds
4. Allow full relaxation and slowly move ankle into a new dorsiflexion barrier while continuing your restrictive barrier at the fibular head
5. Repeat this technique 3-5 times or until mobility returns
Mrs. P Case – Knee Osteoarthritis

1) Stand on the side of the restriction and place the foot between your lower thighs

2) Hold the proximal tibia and fibula with your hands, flexing the patient’s knee to 90 degrees

3) Apply slight distal traction by learning backwards and slowly extend the knee in one smooth motion as you simultaneously translate the tibia and fibula medially and laterally several times

The “Wobble” Technique
Mrs. P Case – Knee Osteoarthritis

Hip Myofascial Release/Muscle Energy Technique

1. **For MFR** – stack patient in planes of ease or restriction for hip joint after testing internal/external rotation, flexion/extension, and abduction/adduction
   - Remembering, that if performing this indirect, you will need an activating force (i.e. compression, traction, or respiration)

2. **For MET** – You can stack the three plane of restriction OR treat each restricted plane one at a time. Have the patient contract against your force for 3-5 seconds, allow them to fully relax, and bring them into the next restricted barrier.
Mrs. P Case – Knee Osteoarthritis

“Bootjack” Ligamentous Articular Strain Technique -

1. Flex the patient’s knee, and flex, abduct, and externally rotated the patient’s hip. Place the back of your upper arm (on the side closes to the patient) against the patient’s distal thigh. Your humerus and the patient’s tibia should be about at right angles to each other.

2. Grasp the patient’s calcaneus between your thumb and index finger.

3. Lean back pushing the calcaneus distally to disengage it.

4. Grasp the distal metatarsals so that the dorsum of the foot is in the palm of your hand.

5. Exaggerate the dysfunction and balance the tension in the metatarsals and tarsals between your hands while you push the calcaneus inferiorly.

6. Maintain the balance until you feel a release
Chronic Low Back Pain

Important areas to examine:
- Lumbar Spine
- Pelvis
- Sacrum
- Leg Lengths
- Psoas

https://specialfootwear.co.uk/services/leg-length-discrepancy/
Chronic Low Back Pain
Chronic Low Back Pain

### Pelvic Somatic Dysfunction

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<th>PSIS</th>
<th>Pubic Symphysis</th>
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Chronic Low Back Pain

1. Grasp above the ankle with both hands above the malleoli
2. Slightly abduct and internally rotate the leg
3. For Anterior Innominate – Flex leg 30 degrees
4. Ask the patient to take a deep breath, while the patient exhales take up traction
5. At the end of the patient’s exhale, apply a firm and quick caudad tug down the leg
Chronic Low Back Pain

Superior Shear MET –
1. Slightly abduct and internally rotate the leg to loosen/soften the SI joint;
2. Pull inferiorly to engage the barrier
3. Ask the patient to pull the ipsilateral hip up toward their shoulder while you provide equal resistance, resulting in an isometric contraction. Hold for 3-5 seconds. Ask the patient to relax.
4. Wait 3-5 seconds for full relaxation. Pull further inferiorly on the leg to engage the new barrier (‘take up the slack’).
5. Repeat 3-5 times or until pelvic mobility returns
Chronic Low Back Pain

**Inferior Shear MET** - Move to place your leg at the bottom of their foot on the affected side. Reach across to the unaffected leg and grasp above the ankle with both hands above the malleoli. Adduct and internally rotate the leg to tighten the unaffected SI joint. Press your leg superiorly against the foot of the affected side to engage the barrier of the pelvis; Hold firmly to the unaffected leg and ask the patient to pull the unaffected hip up toward their shoulder while you provide equal resistance. You should also feel the patient pushing down with the foot of the affected side against your leg. Hold for 3-5 seconds. Ask the patient to relax. Wait 3-5 seconds for full relaxation. Apply superior pressure with your leg against the foot of the affected side to engage the new barrier (‘take up the slack’). Repeat 3-5 times or until pelvic mobility returns.
Chronic Low Back Pain

**Frog-Kick Technique**

1. Patient is supine, stand to side of patient;
2. Place caudal hand under sacrum;
3. Flex hips and knees, knees apart, feet together;
4. Apply traction to base of sacrum and push apex anterior;
5. Have patient rapidly kick legs straight while maintaining inferior pull on sacrum;
6. Repeat 3-5 if needed
Chronic Low Back Pain

Lumbosacral Articulatory/Thrust -

1. Ask patient to interlock fingers behind their head

2. While standing to one side of the patient, use your caudad hand to hold the opposite ASIS and cephalad hand to reach through the patient’s elbow and place onto sternum

3. Lean into ASIS while also flexing and rotating the patient towards you into their restriction

4. Apply a quick, short thrust posteriorly into their ASIS
References


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