



Understanding and Incorporating OMT into Clinical Rotations

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Disclosures

I have no disclosures

Objectives

- At the end of this educational activity, participants will be able to:
 - Articulate the Osteopathic philosophy and understand the history of Osteopathic medicine
 - Identify patients who are good candidates for Osteopathic manipulation
 - Recognize relative and absolute contraindications for OMT
 - Understand the different types of Osteopathic manipulation and when these techniques are appropriate



Andrew Taylor Still (1828-1917)

- A.T. Still mustered into the Kansas Militia as a Sergeant and promoted to Major in the Union Army during the Civil War from September 1, 1861 – October 24, 1864, as a hospital steward, but worked as a surgeon due to his medical skills.
- Shortly after returning home Still became more disillusioned with the current practice of medicine.
- The death of his wife and several of his children had a large impact on his views of medicine.

Osteopathic Medicine

- Dr. Still's philosophy based on:
 - A human beings' innate capacity for self-healing
 - Belief that if the Osteopath could remove the obstructions in the system, nature would provide the healing.



The Four Tenets of Osteopathic medicine

- 1. The human being is a unit; the person is a unit of body, mind, and spirit.
- 2. The body is capable of self-regulation, self-healing, and health maintenance.
- 3. Structure and function are reciprocally interrelated.
- 4. Rational treatment is based upon an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function.



OMT is aimed at restoring the body to its optimal function.

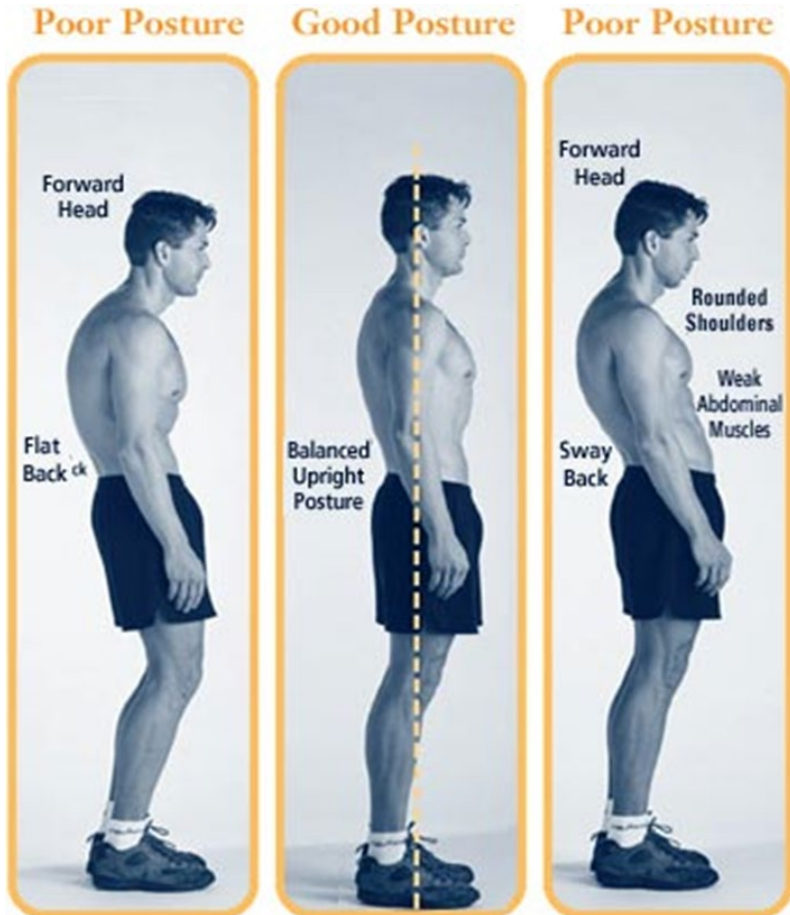
Determining if a patient is a good candidate for osteopathic manipulative treatment

- Review the medical history
 - Pain history:
 - Determine if the pain is musculoskeletal in origin (will also require a physical exam). Though OMT is not just for pain, it can be very effective for back pain, joint stiffness, neck pain, headaches, and sports injuries.
 - Past surgeries or injuries:
 - assess for any history of fractures, surgeries, or injuries that might contraindicate certain manipulative techniques.
 - Medical conditions:
 - Conditions like osteoporosis, severe arthritis, bleeding disorders, or certain vascular diseases may make OMT inadvisable or require technique modification.
 - Medication:
 - Review medications that might increase bleeding risk, such as anticoagulants, as they could limit the use of certain techniques.

Determining if a patient is a good candidate for osteopathic manipulative treatment

- Physical examination
 - Structural and postural assessment: evaluate alignment, posture, and gait which may reveal patterns of imbalance or compensation that OMT can address.
 - Range of motion: limited or asymmetrical movement in joints, such as the spine, neck, or extremities can indicate areas where OMT might be beneficial.
 - Palpation: A skilled palpation exam can reveal areas of muscle tension, tenderness, or restrictions which will help target the treatment to specific areas.

Determining if a patient is a good candidate for osteopathic manipulative treatment



- Lateral plumb line evaluation can yield great information.

Determining if a patient is a good candidate for osteopathic manipulative treatment

- Functional assessment
 - Activities of daily living (ADLs): Assess how pain or dysfunction affects daily activities. If the condition is interfering with mobility, self-care, or work, OMT might provide relief.
 - Neurological assessment: If there are signs of nerve involvement, such as numbness, weakness, or tingling, the practitioner should investigate further to ensure these symptoms are safe to treat with OMT or refer to a specialist, if needed.

Determining if a patient is a good candidate for osteopathic manipulative treatment

- Identifying contraindications and precautions
 - Absolute Contraindications:
 - Patient refusal or inability to consent
 - Manifestation of neurological symptoms brought on by treatment positioning
 - Exacerbation of potentially life-threatening symptomatology by treatment positioning (ex: EKG changes, oxygen desaturation in a monitored patient)
 - Unstable fractures
 - Relative Contraindications (most of these you avoid the site of the contraindication but can treat other areas of the body. Others you avoid certain technique types):
 - Fractures
 - Open wounds
 - Soft tissue or bony infections
 - Abscesses
 - DVT or threat of DVT
 - Anticoagulation
 - Disseminated or focal neoplasm
 - Recent post-operative conditions over the site of proposed treatment (ex: wound dehiscence)
 - Muscle tear
 - Joint dislocation
 - Severe osteoporosis
 - Hypermobility and joint instability
 - Aortic aneurysm

Determining if a patient is a good candidate for osteopathic manipulative treatment

- Patient goals and expectations
 - Patient's preferences and goals: understanding the patient's expectations and desired outcomes from OMT is important, as some patients may have personal preferences or concerns about hands-on treatment.
 - Educational and informed consent: Explain what OMT entails, including benefits and potential risks, so the patient can make an informed decision.

Understanding technique types

- When trying to understand the types of manipulative techniques that can be utilized, it helps to think about the tissue type that is being addressed and TART findings.

TART

- Tissue texture changes
 - Changes in the feel or texture of the tissues (muscles, skin, fascia) that can indicate inflammation, tension, or chronicity of the dysfunction.
 - Ex: acute lower back pain may present with warm, boggy, and edematous tissue in the paraspinal muscles of the lumbar spine while chronic low back pain tends to present with ropey, fibrotic, and decreased elasticity in the same area.
- Asymmetry
 - An imbalance in the symmetry between paired structures or muscles, which can be observed in posture or during palpation.
 - Ex: A patient with a shoulder injury might show asymmetry between the shoulder blades with one scapula being higher than the other. This could indicate muscular imbalance or compensation.
- Restricted range of motion
 - Limitation in joint or tissue movement that deviates from normal range of motion, often due to muscle tightness, joint dysfunction, or pain.
 - Ex: a patient with neck pain may have limited ability to rotate the head to one side. The restriction may be due to muscle tightness or joint restriction in the cervical spine.
- Tenderness
 - Pain or discomfort elicited upon palpation, which may indicate sensitivity due to inflammation, strain, or injury.
 - Ex: A patient with headaches may have tenderness along the upper trapezius, levator scapulae and suboccipital muscles when palpated. This could indicate muscle strain or spasm due to postural stress, which may be contributing to the headaches symptoms.

In general, there are two categories for OMT

- Direct
 - A manipulative treatment in which the restrictive barrier is engaged and the dysfunctional body part is moved towards from the restrictive barrier.
- Indirect
 - A manipulative treatment in which the restrictive barrier is disengaged and the dysfunctional body part is moved away from the restrictive barrier.
 - Considered to be the more gentle of the two types of techniques though direct techniques can be very gentle, too.

Technique types

- Balanced ligamentous tension (BLT)
- Counterstrain
- Facilitated positional release (FPR)
- HVLA
- Lymphatic treatment methods
- Muscle energy
- Myofascial release
- Osteopathic cranial manipulative medicine
- Soft tissue
- Visceral

Balanced ligamentous tension (BLT)

- Used to treat somatic dysfunctions that include ligamentous articular strains.
- Brings a structure into a position of balanced tension to help the area relax. It's especially useful for delicate areas, chronic conditions, and when a gentler approach is needed.
- Ex: A patient presents with SI joint pain that is exacerbated by prolonged sitting or standing. The SI joint is palpated to assess for **asymmetry** and, upon examination, there is mild **restriction** and **tenderness** in the joint.
 - The practitioner will position the pelvis and sacrum in a way that the tension on the SI joint is balanced which allows the surrounding tissues to release without using much force.

Counterstrain

- Utilized when there is an acute or chronic somatic dysfunction with an associated counterstrain/tender point.
- Involves positioning the patient in such a way that pain is reduced at the tenderpoint. Holding the patient in this position for at least 90 seconds will help the muscle to relax.
- Ex: A patient presents with anterior hip and low back pain after a long drive. Upon palpation, a **tender** point is found the muscle belly of the psoas and both psoas muscles are found to be **boggy and hypertonic**.
 - The patient is positioned in a way that shortens the psoas and this is held for 90 seconds. This is a gentle and effective way to relieve pain in a strained muscle.

Facilitated positional release (FPR)

- Utilized when there is myofascial or articular somatic dysfunction
- A gentle technique that is used to quickly reduce muscle hypertonicity and relieve joint restrictions. Especially helpful with acute muscle spasm or chronic tension where more direct techniques might be too uncomfortable for the patient.
- Ex: A patient presents with muscle pain in the upper thoracic region between the shoulder blades after muscle overuse during a workout. On examination, there is muscle hypertonicity. The tissue is warm, boggy, and edematous over the paraspinal muscles.
 - The patient is positioned prone, the student will use a slight compressive force to “facilitate” release of the tight muscles, and the patient’s spine will be moved into a position that further shortens the hypertonic muscles. This is held for 3-5 seconds and allows the muscle to relax.

HVLA (High Velocity, Low Amplitude)

- Utilized when articular somatic dysfunction is identified and when there is also a firm, distinct articular barrier.
- This technique involves applying a quick, controlled thrust to a joint that has restricted range of motion. This allows for rapid release of the restriction.
- Ex: A patient presents with limited mobility in the lumbar spine particularly when rotating to one side. On examination, the student finds a restricted lumbar vertebra that is limiting the patient's movement and causing discomfort.
 - The patient is positioned on their side, rotation and sidebending are induced at the involved segment before a quick, controlled thrust is applied to restore full range of motion.
 - Most beneficial for very localized joint restrictions. Can bring immediate relief.
 - Has a specific list of contraindications, though. (Please see next slide)

HVLA

- Absolute contraindications (regionally or segmentally specific)
 - Upper cervical spine
 - Advanced RA
 - Down syndrome
 - Achondroplastic dwarfism
 - Chiari malformation
 - Fracture, dislocation, spinal or joint instability
 - Joint fusion: surgical, congenital, or pathologic
 - Vertebrobasilar or carotid pathology
 - Acute, local, inflammatory arthritides (RA, SLE, IBD, Psoriatic, Still's, Scleroderma)
 - Joint infection
 - Malignancy involving bone and soft tissue
 - Myelopathy, cauda equina, and other spinal cord pathology

HVLA

- Relative contraindications (regionally or segmentally specific)
 - Acute herniated nucleus pulposus
 - Acute radiculopathy
 - Acute whiplash/severe muscle spasm/strain/sprain
 - Osteopenia/osteoporosis
 - Metabolic bone disease
 - Hypermobility syndromes
 - Regional implanted devices and joint replacements
 - Pacemaker/AICD
 - Spinal cord stimulator
 - Intrathecal pain pumps
 - Insulin pump
 - Breast implants
 - Orthopedic hardware
 - History of inflammatory arthritides

Lymphatic treatments

- Utilized for edema, tissue congestion, or lymphatic stasis. Can also be utilized for infection and inflammation.
- Great for respiratory infections, edema (except decompensated heart failure), and immune support.
- Ex: A patient presents with sinusitis. By gently releasing the tissue around the thoracic inlet and the sinuses utilizing myofascial release as well as effleurage, the lymphatic channels can be opened up which will reduce facial swelling and relieve sinus congestion.

Muscle energy

- Great for dysfunctions that are maintained by muscle hypertonicity
- It's a direct technique but can still be gentle.
- Ex: The same patient that presented with psoas hypertonicity in the counterstrain slide could be treated with muscle energy. The student might do a Thomas test, find one side is hypertonic, and position the patient in a way that puts stretch on the psoas. The patient will then make an isometric contraction against the student's resistance before relaxing and being positioned further into a position of stretch.

Myofascial release (MFR)

- Used to treat somatic dysfunctions involving myofascial tissues or other connective tissues
- Gentle and especially beneficial when there is restriction of motion due to fascial tightness.
- Ex: a patient who spends a lot of time at the computer presents with chronic upper back pain. On examination, there is tightness and ropey tissue palpated between the shoulder blades.
 - The patient is positioned prone and a gentle, sustained pressure to the tight areas is applied until the tissue starts to soften and relax.

Osteopathic cranial manipulative medicine

- A gentle approach that focuses on the subtle motions of the cranial bones
- Can be especially helpful for patients with tension type or migraine headaches.

Soft tissue method

- A very generalized technique that is utilized to help relax tense muscles and fascia.
- Ex: A patient presents with tension type headaches. On examination, the upper trapezius is hypertonic and ropey. Before utilizing muscle energy or another technique to relax the muscles, soft tissue is utilized to prepare the muscles for treatment.

Visceral

- Most often utilized for constipation, post-operative ileus, GERD, IBS, and cystitis.
 - This would not be utilized if there is an abdominal incision or wound.
- Ex: After a thorough evaluation, a patient is treated for constipation. This will involve techniques that stimulate the colon and remove fascial/muscle restrictions to stool movement.

Questions to ask students before they perform OMT

- What did you find on osteopathic structural examination?
 - This should include a thorough physical examination as well as TART findings. They need at least one TART finding to justify OMT.
- How do you plan to utilize OMT with this patient?
 - What treatment modality are they planning to utilize and why
 - Should take into consideration indications and contraindications
 - Should be able to describe the technique
- What pathophysiology are you addressing with OMT?
 - Should be able to tell you how this treatment will potentially improve the patient's symptoms
 - Should be able to describe relevant anatomy

These questions achieve several goals

- Keeps the patient safe
- The patient receives osteopathic consideration for their care
- You learn about osteopathic principles
- Reinforces osteopathic principles and concepts even if OMT is not utilized

Considerations for billing

- You need to be present for the procedure (in this case OMT)
 - Direct supervision is required per the LMU-DCOM rotations manual.
- You need to confirm all exam findings reported to you by the student.

How to document

- TART findings belong in the objective section of the note
- Somatic dysfunction of _____ will be included in the assessments
 - Be sure that there is a primary diagnosis to support the somatic dysfunction diagnosis/diagnoses.
 - Ex: chronic tension type headaches to support somatic dysfunction of the cervical spine
- A procedure note will document the areas treated, with which modality they were treated, and the patient's response to treatment.
 - Should include patient consent, pain and, possibly ROM prior to and after OMT.
- Follow up plans will be noted in the plan.
 - Can include things like increasing hydration and home exercises
 - Student have also learned exercise prescription

ICD-10 codes for Somatic Dysfunction

Body Region	ICD-10
Somatic Dysfunction of the Head	M99.00
Somatic Dysfunction of the Cervical Spine	M99.01
Somatic Dysfunction of the Thoracic Spine	M99.02
Somatic Dysfunction of the Lumbar Spine	M99.03
Somatic Dysfunction of the Sacrum	M99.04
Somatic Dysfunction of the Pelvis	M99.05
Somatic Dysfunction of the Lower Extremities	M99.06
Somatic Dysfunction of the Upper Extremities	M99.07
Somatic Dysfunction of the Ribs	M99.08
Somatic Dysfunction of the visceral and other	M99.09

CC: Neck/shoulder pain

HPI: 38 y/o male with left sided neck and shoulder pain for the past few weeks. The pain is about a achy and sharp pain that is rated a 5/10 and made worse with arm movement above the head. He is taking Tylenol occasionally for pain. No numbness or weakness noted.

PMH: None

PSH: None

Meds: Tylenol OTC

All: PCN causes rash

SH: Denies tobacco, alcohol, and illegal drug use

Works as social worker.

FH: The patient was adopted. Unknown.

VS: Bp 134/78, HR 88, R 18, Temp 98.8

G: 38 y/o y/o male WN/WD in no acute distress.

MSK: Full Rom of shoulder bilaterally

Osteo:

- Rib 4 anterior subluxation
- T9 FRS left
- Decreased abduction of right shoulder

Neuro: No Motor deficits in UE C4-T1 bilaterally

Sensory to light touch intact in UE C5-T1 bilaterally

Assessment:

1. Shoulder pain
2. Somatic dysfunction of Rib
3. Somatic Dysfunction of the Thoracic Spine
4. SD of the Right UE

Plan

1. OMT x 3 regions, Muscle Energy for all regions, The restriction resolved.
2. Follow up in 3 weeks.

Pre-procedure:

The patient was evaluated and the type of OMM needed was determined. The intended procedure was explained and the verbal consent was obtained. Pre-treatment pain was 7/10.

Procedure:

The patient was placed in the sitting position on the table.

- The rib region was treated with muscle energy. The dysfunction resolved.
- The thoracic spine was treated with Muscle Energy. The dysfunction resolved.
- The Upper Extremity was treated with Functional Release Technique. The dysfunction resolved.

Post-treatment pain was 2/10.

Range of motion of the shoulder was increased by 20 degrees of abduction.

Post-Procedure:

Post care instructions were given that included side-effects, treatment reactions, self-care and follow up.

Coding for the Example

- 99213 – 25
- 98926

CPT codes for OMT

- **Group 1 Codes:** (5 Codes)CODE
DESCRIPTION
- 98925 OSTEOPATHIC MANIPULATIVE
TREATMENT (OMT); 1-2 BODY REGIONS
INVOLVED
- 98926 OSTEOPATHIC MANIPULATIVE
TREATMENT (OMT); 3-4 BODY REGIONS
INVOLVED
- 98927 OSTEOPATHIC MANIPULATIVE
TREATMENT (OMT); 5-6 BODY REGIONS
INVOLVED
- 98928 OSTEOPATHIC MANIPULATIVE
TREATMENT (OMT); 7-8 BODY REGIONS
INVOLVED
- 98929 OSTEOPATHIC MANIPULATIVE
TREATMENT (OMT); 9-10 BODY REGIONS
INVOLVED



Documentation resources

- <https://osteopathic.org/practicing-medicine/business-of-medicine/osteopathic-billing-coding/>

Sources

- Foundation of Osteopathic Medicine 4th edition
- Nicholas and Nicholas Atlas
- AACOM Teaching Guide for Osteopathic Manipulative Medicine 2nd edition