Objectives

- Use Chapman’s Points and viscerosomatic reflexes to help identify acute infection
- Identify contraindications for OMM treatment of acute infection
- Perform OMM techniques for acute infection (in a reasonable amount of time!)
Most Common Infectious Diseases Requiring Hospitalization in the United States

1. Lower Respiratory Tract Infection
2. Kidney, Urinary Tract, and Bladder Infection
3. Cellulitis
4. Septicemia
5. Abdominal and Rectal Infection

Treatment of these five infections early in the disease process with OMM will likely lead to the most significant decrease in morbidity, mortality, and cost to the healthcare system.

Most Common Medical Diagnoses for Practice Fusion EMR Users

- Practice Fusion EMR users are primarily primary care providers who practice in small groups of 5 physicians or less.
- A data query of Practice Fusion EMR was performed to find the 25 most common diagnoses by Practice Fusion users.
Most Common Medical Diagnoses for Practice Fusion EMR Users

- **25 most common diagnoses by Practice Fusion users:**
  1. Hypertension
  2. Hyperlipidemia
  3. Diabetes
  4. Back Pain
  5. Anxiety
  6. Obesity
  7. Allergic Rhinitis
  8. Reflux Esophagitis - H. pylori infection?
  9. Respiratory Problems - infectious vs. allergic vs. toxic vs. metabolic
  10. Hypothyroidism
  11. Visual Refractive Errors
  12. General Medical Exam
  13. Osteoarthritis
  14. Fibromyalgia / Myositis
  15. Malaise and Fatigue
  16. Pain in Joint
  17. Acute Laryngopharyngitis
  18. Acute Maxillary Sinusitis
  19. Major Depressive Disorder
  20. Acute Bronchitis
Most Common Medical Diagnoses for Practice Fusion EMR Users

- **25 most common diagnoses by Practice Fusion users:**

  21. Asthma

  22. Depressive Disorder

  23. **Nail Fungus** - infectious but primary problem is often a metabolic/endocrinological disturbance (diabetes/pre-diabetes)

  24. **Coronary Atherosclerosis** - generally more diet-induced or genetic (or a combination of both), but dental disease can predispose to bacterial infection leading to inflammation and plaques

  25. **Urinary Tract Infection**

So what type of diagnostic modalities can be used to help confirm visceral dysfunction?
Frank Chapman, DO

- Graduated from the American School of Osteopathy (to later become Kirksville College of Osteopathic Medicine) in 1899 with Dr. William Garner Sutherland

- Discovered and recorded a map of “neurolymphatic reflexes”, sites in the somatic soft tissues with a reflex linkage to the viscera, lymphatics, and endocrine system

Chapman’s Reflex Points

- A method of recognizing viscerosomatic effects

- A way to influence a beneficial somatovisceral effect through OMM

- Points were described by Dr. Chapman as “small pearls of tapioca that are firm, partially fixed, and located under the skin in the deep fascia”
Chapman’s Reflex Points

• Points are 2-3mm nodular masses that are palpable in soft tissue
• Points demonstrate sharp, pinpoint, non-radiating tenderness
• Points are found in locations segmentally related to visceral innervation

Chapman’s Reflex Points

• Points are proposed to be the result of dysfunction of the sympathetic nervous system upon segmentally related lymphatic vasculature
• Points are found posteriorly adjacent to the spine and anteriorly often in segmentally related areas
• Traditionally, the anterior points have been employed diagnostically, while the posterior points are treated by applying slow circular pressure
Pop Quiz

• What was the very first Osteopathic treatment?

Viscerosomatic Reflexes

• Represent somatic reflection of visceral pathology

• Mediated through the general visceral afferent neurons of the autonomic nervous system

• May manifest as somatic dysfunction without clear restriction of motion and/or with ambiguity of the barrier
Viscerosomatic Reflexes

- Tenderness, tissue texture change, and generalized restriction of motion are often present.

- Differentiated from primary somatic dysfunction by the involvement of two or more adjacent spinal segments.

- Tissue texture change of muscle is most apparent in the deep paravertebral musculature, the multifidae and rotatores, because of their limited segmental innervation.

Viscerosomatic Reflexes

- The anatomic reliability of autonomic innervation of the viscera makes the location of viscerosomatic reflexes predictable and of diagnostic value.

- The intensity of the palpatory findings directly mirrors the severity of the causative visceral pathology (neoplasms are an exception due to lack of innervation - reflex is exclusively by local invasion of or pressure on surrounding tissues with innervation).
An Osteopathic Approach to Diagnosing and Treating Common Acute Infections

Respiratory Tract Infection
Respiratory Tract Infection

- Anterior Chapman’s Points

- Bronchi: intercostal space between ribs 2-3 at the sternocostal junction

- Upper Lung: intercostal space between ribs 3-4 at the sternocostal junction

- Lower Lung: intercostal space between ribs 4-5 at the sternocostal junction
Respiratory Tract Infection

- Posterior Chapman’s Points
- Bronchi: midway between the spinous process and the tip of the transverse process upon T2
- Upper Lung: midway between the spinous process and the tip of the transverse process between the transverse processes of T3 and T4
- Lower Lung: midway between the spinous process and the tip of the transverse process between the transverse processes of T4 and T5

Respiratory Tract Infection

- Viscerosomatic Reflexes for Lungs
  - Sympathetic: T1-T4
  - Parasympathetic: Occiput-C2
Respiratory Tract Infection

- OMM techniques
- Rib Raising at T1-T4
- Suboccipital Release
- Treat Chapman's Points

Notes
Kidney, Urinary Tract, and Bladder Infection

The Honeymoon Period

I'd suffer repeated urinary tract infections for you.

The Honeymoon Period
Kidney, Urinary Tract, and Bladder Infection

- Anterior Chapman’s Points
- Kidneys: 1 inch above the umbilicus, laterally on either side of the midline
- Ureter: not described
- Bladder: immediately surrounding the umbilicus and on the pubic symphysis, just lateral to the midline, midway between the superior and inferior edges of the pubic bones
- Urethra: superior aspect of the pubic symphysis
Kidney, Urinary Tract, and Bladder Infection

- **Posterior Chapman's Points**
  - Kidneys: between the transverse processes of T12 and L1, midway between the tips of the spinous processes and the transverse processes
  - Ureter: not described
  - Bladder: bilaterally upon the superior edges of the transverse processes of L2
  - Urethra: upon the superior edge of the transverse process of L2

Kidney, Urinary Tract, and Bladder Infection

- **Viscerosomatic Reflexes**
  - Sympathetic: T9-L2
  - Parasympathetic: Occiput-C2, S2-S4
Kidney, Urinary Tract, and Bladder Infection

- OMM techniques
- Dorsal Inhibition of Paraspinal Musculature at T9-L2
- Suboccipital Release
- Sacral Inhibition
- Treat Chapman’s Points

Notes
Laryngopharyngitis

DO YOU HAVE A SORE THROAT?
I'M JUST A LITTLE HORSE
Laryngopharyngitis

- **Anterior Chapman’s Points**
  - Pharynx: upon the first ribs 3-4cm medial to where the ribs emerge from beneath the clavicles
  - Larynx: upon the second ribs 5-7cm lateral to the sternocostal junction
  - Tonsils: between the first and second ribs adjacent to the sternum

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Laryngopharyngitis

- **Posterior Chapman’s Points**
  - Pharynx and Larynx: upon C2 midway between the spinous process and the tip of the transverse process
  - Tonsils: upon C1 midway between the spinous process and the tip of the transverse process
Laryngopharyngitis

- Viscerosomatic Reflexes
- Sympathetic: T1-T5
- Parasympathetic: none reported

Laryngopharyngitis

- OMM techniques
- Rib Raising at T1-T5
- Treat Chapman’s Points
Notes

Sinusitis
Sinusitis

- **Anterior Chapman’s Points**

- Nasal Sinuses: bilaterally 7-9cm lateral to the sternum on the upper edge of the second ribs

- Middle Ear: upon the superior/anterior aspect of the clavicles just lateral to where they cross the first ribs
Sinusitis

- Posterior Chapman’s Points
- Nasal Sinuses: upon C2 midway between the spinous process and the tip of the transverse process
- Middle Ear: upon the posterior aspect of the tips of the transverse processes of C1

Sinusitis

- Viscerosomatic Reflexes
  - Sympathetic: T1-T5
  - Parasympathetic: none reported
Sinusitis

- OMM techniques
- Rib Raising at T1-T5
- Treat Chapman’s Points

Notes
Abdominal and Rectal Infection
Abdominal and Rectal Infection

- **Anterior Chapman’s Points**

- **Stomach**: in the intercostal spaces between the 5th / 6th / 7th ribs, from the mid-mammillary line on the left to the sternum

- **Pancreas**: in the intercostal space between the costal cartilages of the right 7th and 8th ribs

- **Liver & Gall Bladder**: in the right-sided intercostal spaces between the 5th / 6th / 7th ribs, from the mid-mammillary line to the sternum

Abdominal and Rectal Infection

- **Anterior Chapman’s Points**

- **Appendix**: near the tip of the right 12th rib upon its superior edge

- **Sigmoid Colon**: upon the left iliotibial tract over the greater trochanter
Abdominal and Rectal Infection

- **Posterior Chapman’s Points**
  - Stomach: in the spaces between the transverse processes of T5 / T6 / T7, midway between the spinous processes and the tips of the transverse processes on the left
  - Pancreas: between the right-sided transverse processes of T7 and T8, midway between the tips of the spinous processes and the transverse processes
  - Liver & Gall Bladder: between the right-sided transverse processes of T5 / T6 / T7, midway between the tips of the spinous processes and the transverse processes
  - Appendix: in the space between the tips of the right-sided transverse processes of T11 and T12
  - Sigmoid Colon: bilaterally in a triangular area, from the transverse process of L2 to the transverse process of L4 and extending laterally to the iliac crest (this Chapman’s Point represents the whole colon)
Abdominal and Rectal Infection

- Viscerosomatic Reflexes
- Sympathetic: T4-L2
- Parasympathetic: Occiput-C2, S2-S4

Abdominal and Rectal Infection

- OMM techniques
- Dorsal Inhibition of Paraspinal Musculature at T4-L2
- Suboccipital Release
- Sacral Inhibition
- Treat Chapman’s Points
Notes

Cellulitis
Cellulitis

- There are no specific Chapman’s Points or Viscerosomatic Reflexes for the skin.

- However, lymph structures are very close to the surface of the skin.

- Lymphatic techniques can help to mobilize lymph fluid and clear skin infection.
Cellulitis

- OMM techniques
  - Thoracic Inlet Release
  - Direct Myofascial Release of Shoulder Girdle
- Diaphragm Release
- Pedal Pump
Septicemia

TIME HEALS ALL WOUNDS?
FALSE.
SEPSIS CAN BE FATAL.

I ONCE SUCCESSFULLY TREATED SEPSIS WITH GENTAMICIN
TOPICALLY
Septicemia

- There are no specific Chapman’s Points or Viscerosomatic Reflexes for the blood.
- However, lymph structures interact closely with the venous system.
- Lymphatic techniques can help to mobilize lymph fluid and clear blood infection.

Septicemia

- OMM techniques
  - Thoracic Inlet Release
  - Direct Myofascial Release of Shoulder Girdle
  - Diaphragm Release
  - Pedal Pump
Soft Tissue Treatment: Contraindications
Relative Contraindications

Use with caution, as common medical sense is the rule. For example, in an elderly osteoporotic patient, the soft tissue prone pressure technique may be contraindicated over the thoracosternal and pelvic regions, but the lateral recumbent methods can be more safely applied. Also, contact and stretching over an acutely strained or sprained myofascial, ligamentous, or capsular structure may exacerbate the condition. Therefore, in these situations, caution should prevail, and the soft tissue technique may be withheld until tissue disruption and inflammation have stabilized.

Other precautions in the use of soft tissue technique:

1. Acute sprain or strain
2. Fracture or dislocation
3. Neurologic or vascular compromise
4. Osteoporosis and osteopenia
5. Malignancy. Most restrictions are for treatment in the affected area of malignancy; however, care should be taken in other distal areas depending on the type of malignancy and/or lymphatic involvement.
6. Infection (e.g., osteomyelitis), contagious skin diseases, painful rashes or abscesses, acute fasciitis, and any other conditions that would preclude skin contact
7. Organomegaly secondary to infection, obstruction, or neoplasm
8. Undiagnosed visceral pathology/pain

Absolute Contraindications

None, as the physician may work proximal to the problem above or below the affected area and may alter the patient’s position or technique to achieve some beneficial effect.
Soft Tissue Treatment: General Considerations

General Considerations and Rules

1. The patient should be comfortable and relaxed.

2. The physician should be in a position of comfort so as to minimize energy expenditure and whenever possible should use body weight instead of upper extremity strength and energy.

3. Initially, forces must be of low intensity and applied slowly and rhythmically. As heat develops and the tissues begin to react, the pressure may be increased if clinically indicated and well tolerated; however, the cadence should remain slowly rhythmical.

4. The applied forces should always be comfortable and not cause pain. A comfortable and pleasant experience is the intended effect.

5. Never direct forces directly into bone, and limit pressure into the muscle belly.

6. As this is not a massage or friction technique, never rub or irritate the patient’s skin by the friction of your hands. The physician's hand should carry the skin with it and not slide across it when applying the directed force.

7. Determine how you would like to employ the force:
   a. By pushing or pulling perpendicular to cause traction to the long axis of the musculotendinous structure
   b. By applying traction in a parallel direction to the long axis, increasing the distance between the origin and the insertion of the muscle fibers
OMM Techniques

Rib Raising

Thoracic Region: Rib Raising, Supine Extension

This procedure is commonly used in the postoperative setting to treat the somatic components of visceral-somatic reflexes (postoperative paralytic ileus).

1. The patient is supine on the treatment table or hospital bed, and the physician is seated on the side to be treated.

2. The physician’s hands (palms up) reach under the patient’s thoracic spine (Fig. 7.76) with the pads of the fingers on the patient’s thoracic paravertebral musculature between the spinous and the transverse processes on the side closest to the physician (Fig. 7.77).

![Figure 7.76](image.png)

Step 2.
3. The physician exerts a gentle force ventrally to engage the soft tissues and laterally perpendicular to the thoracic paravertebral musculature. This is facilitated by a downward pressure through the elbows on the table, creating a fulcrum to produce a ventral lever action at the wrists and hands, engaging the soft tissues. The fingers are simultaneously drawn toward the physician, producing a lateral stretch perpendicular to the thoracic paravertebral musculature (Fig. 7.78).

4. This stretch is held for several seconds and is slowly released.

5. Steps 3 and 4 are repeated several times in a gentle, rhythmic, and kneading fashion.

6. The physician's hands are repositioned to contact the different levels of the thoracic spine, and steps 3 to 6 are performed to stretch various portions of the thoracic paravertebral musculature.

7. This technique may also be performed using deep, sustained pressure.

8. Tissue tension is reevaluated to assess the effectiveness of the technique.
**Dorsal Inhibition**

Specific VSR Treatment: **Dorsal Inhibition**

**CORE TECHNIQUE**

- Treats *facilitated paraspinal muscles* from VSR’s
- Fingertips on lateral border of paraspinal muscles on one side
- Thenar/hypothenar eminences on lateral border of paraspinal muscles on the other side
- Approximate fingertips and thenar/hypothenar eminences
- Maintain tension until paraspinals soften and facilitation is broken

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**Suboccipital Release**

Cervical Region: Suboccipital Release, Supine

1. The patient lies supine on the treatment table.
2. The physician sits at the head of the table.
3. The physician’s finger pads are placed palm up beneath the patient’s suboccipital region, in contact with the trapezius and its immediate underlying musculature (Fig. 7.17).

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4. The physician slowly and gently applies pressure upward into the tissues for a few seconds and then releases the pressure (Figs. 7.18 and 7.19).

5. This pressure may be reapplied and released slowly and rhythmically until tissue texture changes occur or for 2 minutes. The pressure may also be continued in a more constant inhibitory style for 30 seconds to 1 minute.

**CORE TECHNIQUE**

- Patient prone
- Palms on sacrum
- Elbows extended
- **Apply downward pressure** by gradually lowering your weight
- Have pt take full breath in, **then ½ breath out** and HOLD as long as comfortable
- When they exhale follow tissue to new barrier of resistance
- Repeat
- Hold pressure for **1-2 minutes**
- Release slowly
Thoracic Inlet Myofascial Release

Thoracic Region: Thoracic Inlet and Outlet, Seated Steering Wheel

1. The patient is seated. The physician stands behind the patient.

2. The physician places the hands palms down over the shoulders, at the angle of the neck and shoulder girdle (cervicothoracic junction) (Fig. 8.4).

3. The physician places the thumbs over the posterior first rib region, and places the index and third digits immediately superior and inferior to the clavicle at the sternoclavicular joints bilaterally (Fig. 8.9).

4. The physician lifts upward into the patient’s posterior cervical tissues with only enough force to control the skin and underlying fascia so as to not slide across the patient’s skin.

5. The physician monitors inferior and superior, left and right circumferential rotation, and torsional (twisting) motion availability for ease-bind symmetric or asymmetric relations.

6. After determining the presence of an ease-bind asymmetry, the physician will either indirectly or directly meet the ease-bind barrier.

7. The force is applied in a very gentle to moderate manner.

8. This force is held for 20 to 60 seconds or until a release is palpated. The physician may continue this and follow any additional release (creep) until it does not recur. Deep inhalation or other release enhancing mechanisms can be helpful.
Direct Myofascial Release of Shoulder Girdle

Thoracic Region: Pectoral and Chest Cage Motion Restriction: Long-Levered Traction Through Shoulder Girdle

1. The patient lies supine, and the physician sits or stands at the head of the table.

2. The patient’s arms are extended at the elbows and slowly flexed at the shoulder by lifting them upward off the table until meeting a restrictive barrier (normal flexion is approximately 180 degrees) (Figs. 8.9 and 8.10).

3. The physician carefully checks the flexion barrier and then, by adding a traction force in a cephalad direction and rotating the shoulders externally and internally, by extending forearm supination and pronation, attempts to determine where a compound, resultant restrictive barrier exists (Figs. 8.11 and 8.12).

4. The physician is attempting to determine restrictive barriers not only proximally in the shoulder girdle, but in the distal upper extremities as well as the chest cage and abdomen/pelvis. When sensing the restrictive fascial barriers, the physician exerts a force “directly” in a gentle to moderate manner and holds this tension for 20 to 60 seconds or until a release is palpated.

5. To facilitate the reaction, a “Release Enhancing Maneuver” (REM) may be produced by having the patient inhale fully, hold the breath for 5 to 10 seconds, and then exhale.

6. When a release is palpated, the physician should follow it by adding traction and rotational maneuvers to the new restrictive barrier. If preferred, the physician may perform this technique indirectly toward the ease barriers, but in our clinical experience, the direct version is most successful.
Treatment of Chapman’s Points

- Identify the corresponding posterior point to the anterior point found
- Apply firm, gentle pressure to the point in a circular fashion
- Continue the pressure until the point softens and the tenderness is reduced
- Treatment time is usually 10-30 seconds

Treatment of Chapman’s Points

- Recheck the tenderness of the anterior point
- If the anterior point is still tender, treat the anterior point
- Recheck the tenderness of both anterior and posterior points
- Change of the organ function is not normally observed for 24 hours
- Treatment can be repeated until changes of organ function are achieved
So about that Pop Quiz…

Answer to the Pop Quiz

• In A.T. Still’s *Autobiography*, he describes having been afflicted with chronic headaches when he was a boy.

• He would cure his headaches by lying on the ground with the base of his skull resting on a rope tied between two trees.

• Based on this, the very first Osteopathic treatment was self treatment with Suboccipital Release (aka “Killer Fingers”).
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