





# Osteopathic Manipulation: Helping Patients from Childhood through Adulthood Part 1



Stacey England, DO  
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## Disclosures

1. With respect to my presentation, I do not have any financial arrangement or affiliations with any corporate organization(s) offering financial grants or support or development or sales of products to be discussed in this CME Program.

## Objectives

- Understand the value of Osteopathic treatment in the pediatric population
- Increase interest in OMT for pediatric patients
- Understand and discuss key concepts when evaluating and treating pediatric patients with OMT
- Recognize the importance of identifying red flags and contraindications to OMT
- Identify common conditions amenable to OMT
- Be able to discuss balance ligamentous tension technique and the application to pediatric patients
- Introduce/review techniques that address the occipital condyles, sinuses, mandibular area/Eustachian tube, sympathetic chain, abdominal diaphragm, and pelvis.

## Key points

- Osteopathic tenets
  - Biopsychosocial aspects
- The child is not just a "small adult" - Anatomy and physiology
  - Developmental anatomy
  - Muscles, bones, joints
- Wolf's law
- "As the twig is bent, so is the tree inclined" ~ William Sutherland, DO
- Fryette's principles do not apply to newborns and infants
- Good history and physical → appropriate assessment and plan
- Red flags and contraindications
- Choosing appropriate technique(s)

## Key points: evaluation

- General inspection – static symmetry
- Palpation – tissue should feel healthy – look for health and help the body get the other area(s) back to health
  - even subtle differences
  - Chapman's points – viscerosomatic reflexes
  - Inherent motion of the tissues
- Active ROM → Passive ROM
- Neuro, vascular – strength, neuro-sensory, vascular, other/special tests
- What is the body trying to tell us from the history and PE?

## Common disorders amenable to OMT - AND MANY MORE -

- HEENT
  - Plagiocephaly
  - Poor suckling, feeding
  - Sinusitis
  - OM, Eustachian tube dysfunction
  - TMJ
- Gastrointestinal
  - GERD
  - \*Colic
  - Constipation
  - IBS
- Respiratory
  - Asthma
  - Pneumonia
  - TTN
- Genitourinary
  - Dysmenorrhea
  - Dysfunctional voiding
- Neuro/psych
  - ADD/ADHD
  - Strabismus
  - Anxiety/depression
  - Headaches/migraines
- Musculoskeletal
  - torticollis
  - Scoliosis
  - Patellofemoral syndrome
  - Osgood Schlatter
  - IT band syndrome

## Be aware/Contraindications

- Red flags – proper history and physical exam
- Unclear diagnosis – exs: craniosynostosis, Hirschsprung disease, cancer
- Joint laxity, instability, vulnerability (Exs: Down Syndrome – OA, Ehler's Danlos, DHD - hips) – can still use OMT, but choose appropriate techniques
- Over enlarged friable organs
- Obstructive lung disease – asthma, CF; newborns and infants – avoid marked increase in inhalation volumes to avoid air trapping
- Do not compress the abdominal diaphragm of newborn/infants/small children
- Patient or parental refusal
- Uncooperative patient
- Others on case-by-case basis – clinical judgement
- Physician competence

## Key points: Osteopathic treatment

- Goals = symmetric growth, homeostasis
- Keep well w/in physiologic barrier
  - Laxity of tissues, ossification
- Patience
- Do not force it
- **BLT** – Balanced ligamentous tension technique
  - Follow tissues being treated to balanced tension in all planes – do not force
  - Still point – where treatment occurs
- Occipital condylar treatment – CNs IX, X, XI, XII
- Do not overtreat – treat key areas
  - Even small changes can start the healing process
- Reassess
- Preventative care

## Condylar decompression



JAOA OMT Minute: Condylar Decompression Technique for Infants link:  
[https://www.youtube.com/watch?v=q7Nd\\_vwzEt4](https://www.youtube.com/watch?v=q7Nd_vwzEt4)

## Sinus effleurage – frontal and maxillary sinuses

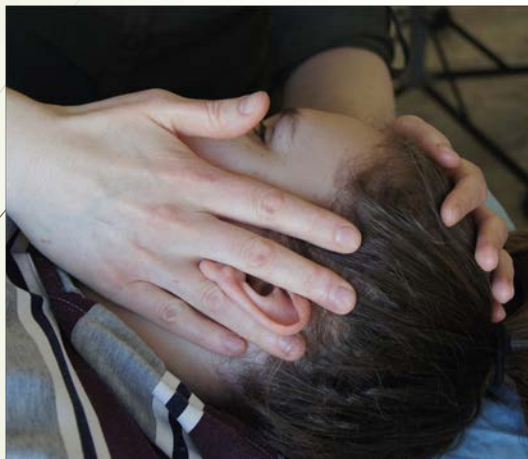
- Patient supine or seated
- Doc at head of table (or in front of patient if seated)
- Warn about possible drainage down the back of throat
- Should not be pushing on TMJs, but should be aware if concern in this area
- Frontal sinuses: thumbs engage medial frontal sinuses – move thumbs laterally over skin/engaging sinuses then inferior toward zygomatic arches
- Maxillary sinuses: thumbs engage medial maxillary sinuses – move thumbs laterally over skin/engaging sinuses then inferior toward angle of mandible

## Galbreath technique



- \* Can do seated as well
- \* Contraindicated or caution with **TMJ d/o** – evaluate if unsure
- \* Can stabilize as seen in picture or on opposite side of head – just beware not to compress or cause unwanted effects with stabilizing hand
  - Warn about possible drainage
  - Ask patient to relax mouth open
  - medial, inferior, slight anterior motion of mandible

## Auricular drainage



- \* Can do seated as well
- \* Contraindicated or caution with **TMJ d/o** – evaluate if unsure
- \* Can stabilize as seen in picture or on opposite side of head – just beware not to compress or cause unwanted effects with stabilizing hand
  - Warn about possible drainage
  - Engage tissue to temporal bone and gently move clockwise until release felt, then counter-clockwise until release felt

## Ear pull technique



## Rib raising – 2 handed seated or supine

- remember anatomy of pediatric rib angles
- must have good head control to perform seated



Stabilize at anterior axilla anteriorly, do not compress



Engage rib angles anterior and gentle lateral traction

## Rib raising



## Abdominal diaphragm technique



- Cephalad thumb:  
gently engage area  
below xiphoid

- Caudal thumb:  
gently engages  
abdominal area  
below cephalad  
thumb and above  
umbilicus and  
provides traction  
inferiorly



## Abdominal diaphragm technique



## Sacrum/innominate evaluation and treatment, BLT



Sacral contact demonstration – with cephalad hand  
\*note: this is opposite hand placement for adults



Inhalation/cranial flexion – external rotation of innominates, sacrum counternutates (extends).  
Exhalation/cranial extension – internal rotation of innominates, sacrum nutates (flexes)

Don't forget to have fun!



THANK YOU!

## References

- Carreiro, J.E. (2009). *An Osteopathic approach to children*. 2<sup>nd</sup> ed. Churchill Livingstone Elsevier.
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- Kuchera, M.L., Kuchera, W.A. (1994). *Osteopathic consideration in systemic dysfunction*. 2<sup>nd</sup> ed. pp. 171 - 179. Columbus, OH: Greyden Press.
- Moeckel, E., Mitha N. (2008). *Textbook of Pediatric Osteopathy*. Philadelphia, PA: Elsevier

## Recommended reading

