

# OSD Conference 2023

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Osteopath

Observation, Palpation &  
Application of High Velocity Low  
Amplitude Thrusts  
HVLAT

- **DIAGNOSIS**

CASE HISTORY

PRESENT/PAST MEDICAL HISTORY

CONTRIBUTORY FACTORS

CLINICAL EXAMINATION

- **CLINICAL  
EXAMINATION**

TOUCH

VISUAL

PROPRIOCEPTIVE

AUDITION

# OSTEOPATH'S LONG TERM MEMORY (LTM)

BIOMECHANICAL KNOWLEDGE

BIOMEDICAL KNOWLEDGE

GENERAL SYSTEMIC & PATHOLOGICAL KNOWLEDGE

EXPERIENCE

# OBSERVATIONS

- GET A GOOD VIEW!
- STAND BACK – 2M
- RECORD FIRST IMPRESSIONS
- DRAWING/PHOTOS (WITH PATIENT PERMISSION)
- RECORD FINDINGS

# OBSERVATIONS

- POSTURE
- WEIGHT-BEARING A/P AND CORONAL
- SHAPE
- MOBILITY/MOVEMENT
- LOOK AT INDIVIDUAL AREAS
- RELATE BACK TO ORIGINAL OBSERVATIONS

# OBSERVATIONS

- ACTIVE MOVEMENTS
- SYMETRY/ASYMETRY OF MOVEMENT
- GAIT
- ACTIVE CLINICAL TESTS
- COMPENSATIONS
- ADVENTITIOUS MOVEMENTS-NYSTAGMUS/OTHER
- AREAS OF INCREASED/DECREASED ACTIVITY

# PALPATION

- HOW DO WE PALPATE?
- TACTILE & PROPRIOCEPTIVE PALPATION
- WHAT DO WE PALPATE WITH?

# PALPATION

USE OF HANDS- FINGERS & THUMBS/THEAR & HYPOTHENAR EMINENCE

GETTING FEEDBACK FROM ANY POINT OF CONTACT WITH PATIENT

USE OF THE PRACTITIONERS BODY TO INTERPRET FUNCTION OF DEEPER STRUCTURES

OSTEOPATH TO USE OWN PROPRIOCEPTION

# PALPATION

**SCAN-** SKIN TONE

-TEXTURE

## DEEPER PALPATION

INTERPRETATION OF DEEPER TISSUES/STRUCTURES

-Pressure

- Percussion

# PALPATION

ANATOMICAL

ANATOMICAL LEVELS/LANDMARKS

PALPATION OF ACTIVE MOVEMENTS/CLINICAL TESTS

PALPATION OF PASSIVE MOVEMENTS

<b>VISION</b>	<b>VISION + HAPTICS</b>	<b>HAPTICS</b>
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# **HIGH VELOCITY LOW AMPLITUDE TECHNIQUES**

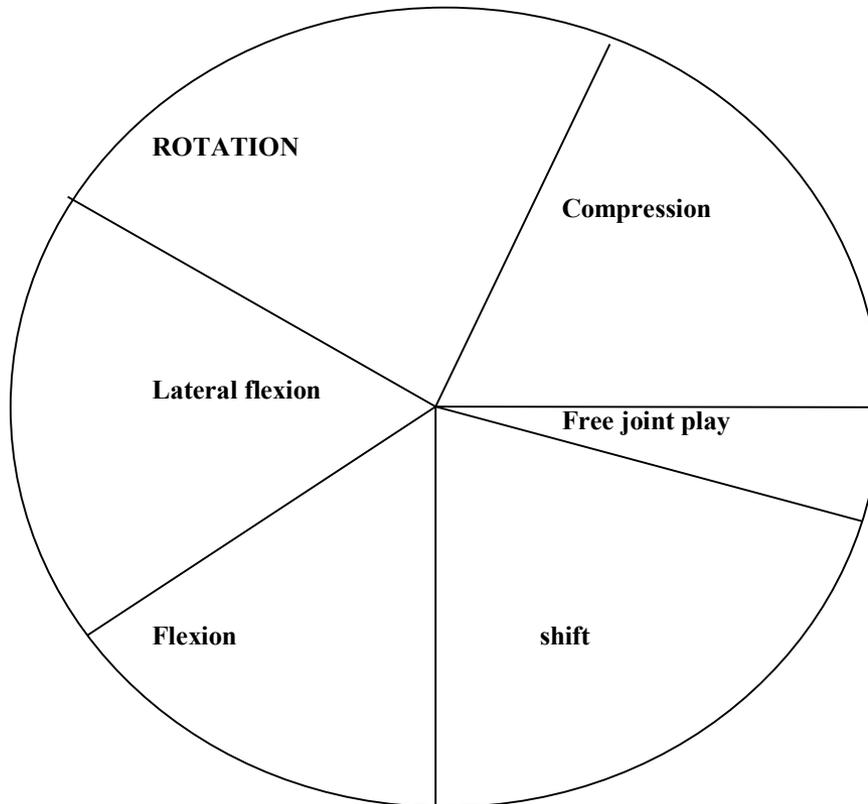
**USE A COMBINATION OF LEVERS TO FOCUS ON TARGET JOINT**

**ATTEMPT TO USE THE MINIMAL OVERALL AMPLITUDE**

# **LEVERAGES USED IN STRUCTURAL TECHNIQUE**

- **FLEXION**
- **EXTENSION**
- **LATERAL FLEXION** left or right
- **ROTATION** left or right
- **SHIFT** lateral and/or anteroposterior
- **COMPRESSION** vertical/other
- **TRACTION**

## MULTIPLE COMPONENTS



# BARRIER CONTROL

R  
E  
S  
I  
S  
T  
A  
N  
C  
E

INEFFECTIVE

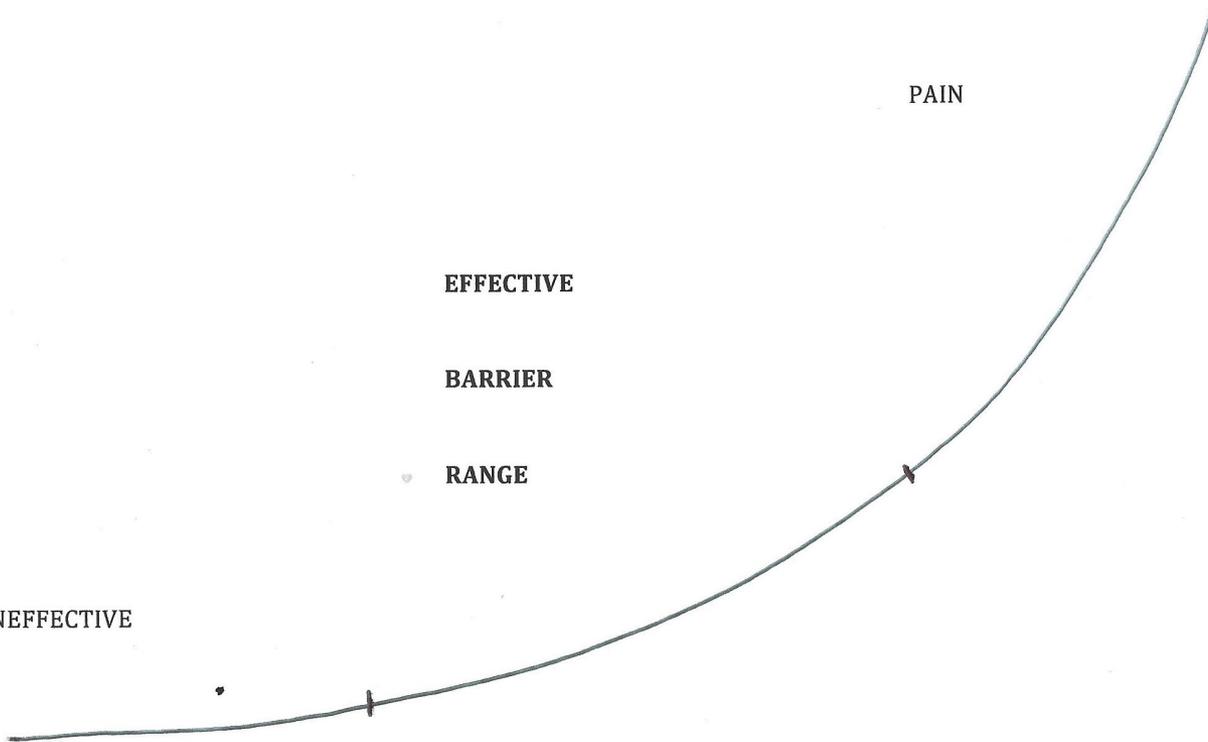
EFFECTIVE

BARRIER

RANGE

PAIN

AMPLITUDE



## **MODIFYING FACTORS IN STRUCTURAL TECHNIQUE**

- **FORCE**
- **AMPLITUDE**
- **DIRECTION**
- **ONSET**
- **ARREST**
- **RHYTHM**
- **MOMENTUM**
- **BARRIER CONTROL**

# **MODIFYING FACTORS in OSTEOPATHIC** **TECHNIQUE**

**ALWAYS CONSIDER CONTRA-INDICATIONS TO**  
**OSTEOPATHIC TREATMENT AND ESPECIALLY HVLAT**

# **MODIFYING FACTORS in OSTEOPATHIC** **TECHNIQUE**

- **SPEED / VELOCITY**
  - **Depends on type of technique**
  
  - **High Velocity Low Amplitude Thrust - HVLAT**

# **MODIFYING FACTORS in OSTEOPATHIC** **TECHNIQUE**

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## **ONSET**

- HVLAT :Timing : too early and force will be dissipated  
: too late and the force will increase

## **ARREST**

**Always in control**

# **MODIFYING FACTORS in OSTEOPATHIC** **TECHNIQUE**

- **DURATION**

- **HVLAT : the force used applied as fast as possible**
  - : may be ‘primed’ once or twice prior to the thrust**
  - : momentum**

- **AMPLITUDE**

- **HVLAT : as minimal as possible in a very controlled direction**

# **MODIFYING FACTORS in OSTEOPATHIC** **TECHNIQUE**

- **FORCE**
  - Accurate focus on target tissue will demand lower force
  - Force need to be sufficient to accomplish the technique  
(ALWAYS CONSIDER CONTRA-INDICATIONS)
  - Force is dependent on all other modifying factors
  - Use of “recoil” to reflect force back in to the tissue
  
- **PLANE**
  - HVLAT : across or parallel to plane of joint  
: anomalies of anatomy

# **MODIFYING FACTORS in OSTEOPATHIC** **TECHNIQUE**

- **COMPRESSION**
  - **Consider as simply another vector in leverage system.**
  - **Can be used to reduce the amplitude of individual components and of the overall leverage**
  - **The act of applying compression also “compresses” the operators tissues helping identify contact points.**

# **MODIFYING FACTORS in OSTEOPATHIC** **TECHNIQUE**

- **CONTACT POINT PRESSURE**
  - **Helps remove “slack” from the overlying tissues**
  - **Helps practitioner stay “in-touch” with responses from patient and his/her tissues**

# **MODIFYING FACTORS in OSTEOPATHIC** **TECHNIQUE**

- **RESPIRATION**
  - **Helps patient relax**
  - **Use of inhalation or exhalation**
  - **At what point in respiratory cycle?**
- **RESISTANCE**
  - **From target tissue/structure**
  - **Surrounding adhesions – may dissipate leverage**

# **OSTEOPATHIC TECHNIQUE**

- **RESTORES FUNCTION IN MUSCULOSKELETAL TISSUES**
- **WE NEED TO PALPATE CHANGES IN THE TISSUES AS THEY HAPPEN**
- **WE NEED TO CREATE ENOUGH CHANGE TO HELP REPAIR**
- **THERE ARE MANY DIFFERENT TYPES OF OSTEOPATHIC TECHNIQUE**
- **OSTEOPATHIC TECHNIQUES SHOULD BE GENTLE AND NOT CAUSE PAIN**

# OBJECTIVES OF TREATMENT

RELIEVE PAIN

IMPROVE FUNCTION

SHORT TERM AIMS/OBJECTIVES

LONG TERM AIMS/OBJECTIVES

# **EFFECTIVE TECHNIQUE**

**ANATOMY**

**MORPHOLOGY**

**PAIN**

## **CHOOSE TECHNIQUE**

**IDENTIFY - PRINCIPLES**  
**- LEVERAGES**  
**- CONTACT POINTS**  
**- APPLICATORS**

**MODIFY TECHNIQUE - TO PATIENTS NEEDS**  
**- TO OPERATORS NEEDS**

# **EFFECTS OF MANIPULATION**

## **MECHANICAL**

**ADHESIONS BROKEN DOWN**

**LIGAMENTS AND CAPSULES STRETCHED**

**FASCIAL PLANES GLIDE**

**VISCOELASTIC STRETCH RESTORED**

**INTRA-ARTICULAR MENISCOIDS “released”**

**SEPERATION OF IMPACTED ARTICULAR CARTILAGE**

**“JOINT MICE” RELEASED AT IMPINGEMENT SITES**

# EFFECTS of MANIPULATION

## NEUROLOGICAL

**Afferent to Efferent balance : resetting of homeostatic balance.**

**Proprioceptors “woken up” : shock to nervous system with sudden input.**

**Golgi tendon apparatus modified.**

**Noxious nociceptor patterns readjusted.**

# EFFECTS of MANIPULATION

## HYDROLIC

Change in viscosity of synovial fluid

## CIRCULATION

Sympathetic Nervous system altered

Neurologic control of joint changed

Relaxation of muscle

Balance between blood inflow & outflow changed

Therefore reduction in pain due to reduction in substance P and flushing out of exudates

# EFFECTS of MANIPULATION

## PSYCHOLOGICAL

Effects of TOUCH, MANIPULATION.

## **WHY IS IT NOT WORKING**

- **ARE YOU TRYING TOO HARD?**
- **IS THE PATIENT AWARE/RELAXING?**
- **START AGAIN AND THINK ABOUT:-**
  - **-PRINCIPLES**
  - **-VISUALISE ANATOMY**
  - **-CONTACT POINT PRESSURE**
  - **-DURATION**
  - **-TIMING**
  - **-RELAXATION**
  - **-CO-OPERATION**
  - **-BARRIER CONTROL**
  - **-VELOCITY**
  - **-AMPLITUDE**
  - **-ARREST**

## OSTEOPATHIC MAXIMS

- **FIND IT, FIX IT, LEAVE IT ALONE**
- **TREAT ONLY WHAT YOU CAN FIND**
- **FOLLOW THE PATH OF THE LESION**
- **EXAGGERATE THE LESION**
- **ISOLATE THE KEY LESION**
- **HOLD ON TO THE LESION**
- **LOOSEN ABOVE AND BELOW**

## References

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