

OSD CONFERENCE

9, 10, 11 JUNE 2023

- DAVID TATTON DO
 - OSTEOPATH

- HVLAT WORKSHOP HANDOUT

PRINCIPLES OF OSTEOPATHIC TREATMENT

THERE IS A SOMATIC COMPONENT TO DISEASE

ALL “DIS-EASE” STATES CONSIST OF SOME OR ALL OF THESE COMPONENTS:-

Musculoskeletal dysfunction

Infection

Biophysical stress/dysfunction

Mental/emotional stress

Environmental stress

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

THINK STRUCTURE & FUNCTION

- WHAT MUST WE DO TO IMPROVE FUNCTION
- LOOK AT ANATOMY
- IDENTIFY BREAKDOWN IN COMPENSATIONS
- ALTERED PHYSIOLOGY (PATHOLOGY)

OBSERVATIONS

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

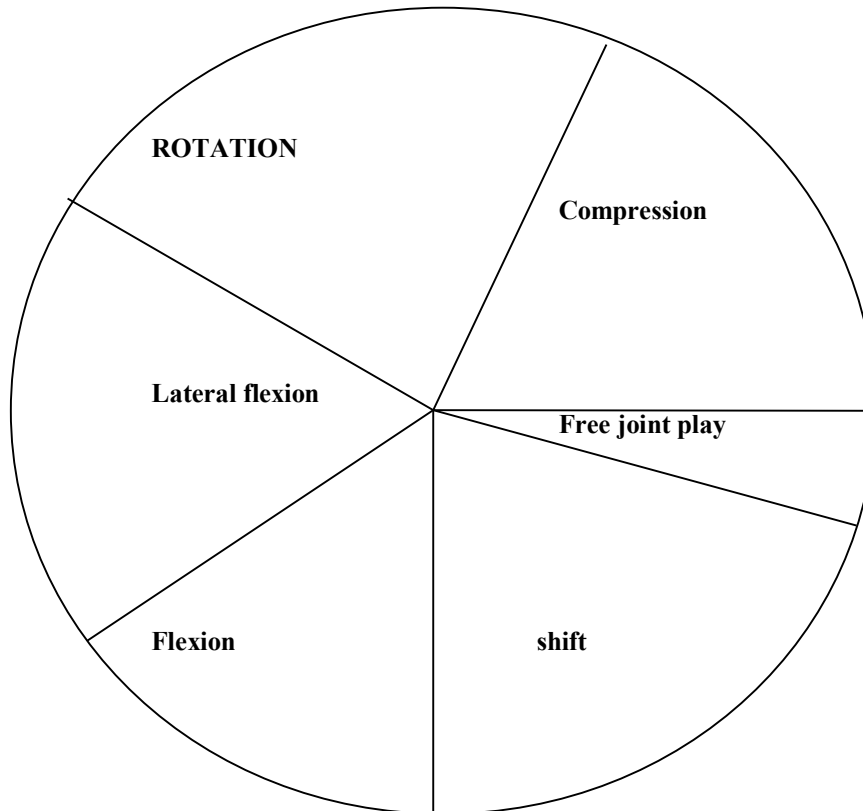
HIGH VELOCITY LOW AMPLITUDE TECHNIQUES

- **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



MODIFYING FACTORS IN STRUCTURAL TECHNIQUE

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

BARRIER CONTROL

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INEFFECTIVE

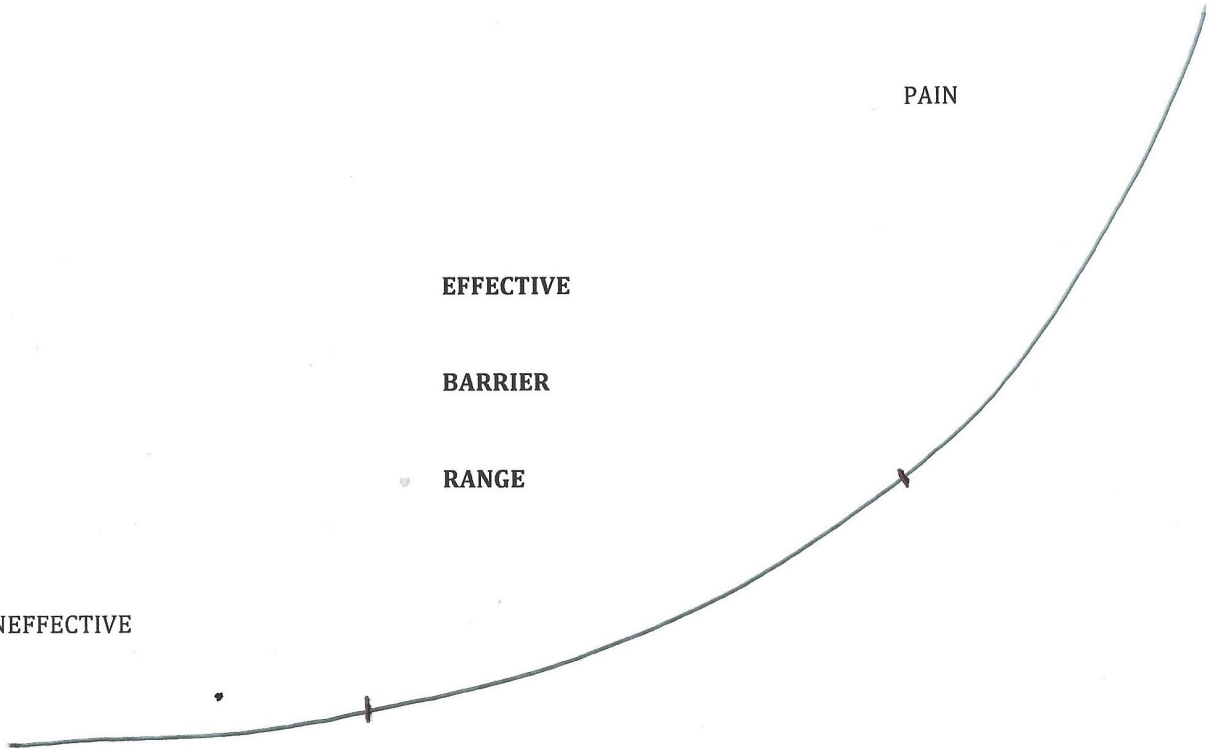
EFFECTIVE

BARRIER

RANGE

PAIN

AMPLITUDE



MANUAL THERAPY

- (1) RELIEVES PAIN**
- (2) INCREASES MOBILITY**
- (3) REDUCES INFLAMMATION AND EFFUSION**
- (4) IMPROVE RECEPTOR FUNCTION**
- (5) PROMOTE HEALING**
- (6) IMPROVE JOINT STABILITY AND MOTOR ABILITIES**

ALL LEAD TO IMPROVED MECHANICAL AND NEUROMUSCULAR ACTIVITY

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**

- **DURATION**

- **HVLAT : the force used applied as fast as possible**
: may be primed several times prior to the thrust

- **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**

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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**

- **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**

- **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**

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

EFFECTIVE TECHNIQUE

ANATOMY

MORPHOLOGY

PAIN

CHOOSE TECHNIQUE

IDENTIFY - PRINCIPLES
- LEVERAGES
- CONTACT POINTS
- APPLICATORS

MODIFY TECHNIQUE - TO PATIENTS NEEDS
- TO OPERATORS NEEDS

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**

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.

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**