Joint Mobilization – Shoulder Saturday, March 24, 2018
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What is joint mobilization?
- Skilled passive movements performed in such a manner and speed that at all times they are within the control of the patient so that movement can be prevented if the patient so chooses.
- Can be used to describe both passive physiological and passive accessory movements

“A technique is the brainchild of ingenuity”
Geoffrey Maitland

Treatment by passive movement vs. joint mobilization
- Don’t let the terminology limit your treatment options
- Often joint mobilization is thought of only as arthokinematic movements/accessory motions
- Treatment by passive movement allows for more options, creativity

“Treatment by passive movement. What are our options?”
Accessory vs. Physiological Movement

**Physiological movement** – those movements that a person can carry out actively
- Also referred to as osteokinematic motion
- Flexion, extension, external rotation

**Accessory movement** – movements that a person cannot perform independently but can be performed on them by someone else
- Also referred to as arthrokinematics, joint play
- Glide, slide, roll, spin
- Compression, distraction

Selection of Technique - Considerations

- Diagnosis
- Arthrokinematic “rules”
- Recognition of clinical patterns
- Aspects of the technique itself
- Experience

Selection of Technique

**Diagnosis**
- A diagnostic label alone is of limited value when selecting passive movement techniques
- We must recognize that the same diagnosis can exhibit many different clinical presentations
- A definitive diagnosis is not always possible
- Etiology is often multifactorial

Convex – Concave Rule

- Convex moves on convex, roll and glide in opposite directions
- Concave moves on convex, roll and glide in same direction

Staged Approach for Rehabilitation Classification: Shoulder Disorders (STAR-Shoulder)

Selection of technique guided by clinical presentation

Assessment: S I N S
- Severity
- Irritability
- Nature
- Stage

Assessment – S I N S
- Driving concept for much of what we do
  - Type of examination – provoke symptoms, not to provoke symptoms
  - Intervention – selection of technique
  - Prognosis

Aspects of the Technique

Selection of Technique
Grades of Movement Used to Describe:
- The amplitude of the technique
- The position in the range where the technique is performed
- The vigor of the technique
- Can be uses to describe accessory or physiological motions

Grades of Movement
### Grades of Movement

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>a small amplitude movement in the resistance free portion of range</td>
</tr>
<tr>
<td>2</td>
<td>a large amplitude movement in the resistance portion of range</td>
</tr>
<tr>
<td>3</td>
<td>a large amplitude movement into resistance</td>
</tr>
<tr>
<td>4</td>
<td>a small amplitude movement into resistance</td>
</tr>
<tr>
<td>5</td>
<td>a high velocity, small amplitude thrust</td>
</tr>
</tbody>
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### Selection of Technique: Pain Dominant Presentation

- Pain through range and pain is to be avoided
- Least painful position
- Technique comfortable and comforting
- Amplitude as large as possible without provoking pain or increasing baseline pain
- Begin with passive accessory motion, as pain eases progress to passive physiological motion

#### Pain Dominant Presentation

- Smooth rhythm
- Short duration
- Slow speed

#### Pain dominant – recommended techniques

- Posteroanterior movement – arm by the side
- Longitudinal movement, arm by the side
- Glenohumeral rotation

#### Pain dominant presentation

- Posterior to anterior movement – arm by the side
Pain dominant presentation
Glenohumeral rotation through pain free range

Stiffness Dominant
- Passive physiological movements – flexion, abduction, external rotation
- Passive accessory motion – inferior glide, anterior glide, posterior glide
- Combined motions – passive glides with passive physiological

Selection of Technique
End of range, stiffness dominant
- Quicker, staccato movement
- Respect discomfort based on SINS
- Longer duration

Selection of Technique
Stiffness dominant presentation
- End of range position
- Firm technique
- Small amplitude
- Combined motions

Stiffness dominant presentation
Passive physiological motion, grade IV

Stiffness dominant presentation
Passive physiological grade IV, external rotation
Stiffness dominant presentation
Passive accessory, inferior glide in abduction

Stiffness dominant presentation
Combined passive physiological rotation with anterior glide

Stiffness dominant presentation
Combined physiological flexion/external rotation with accessory motion/glide

Stiffness Dominant
How firm can you be?
- The “vigor” of the technique - how far into resistance are you willing to push?
- Relationship between pain and resistance on movement testing
- Irritability response from the previous treatment
- The history of the disorder, stability/stage

Treatment Planning Worksheet
What do you think you will be treating?
- Pain
- Resistance/stiffness
- Pain and stiffness, pain dominant
- Stiffness and pain, resistance dominant

Treatment Planning Worksheet
Pain dominant
- How quickly do you think you will progress to treating resistance?

Resistant dominant
- To what extent do you intend to respect pain?
Treatment Planning Worksheet

What is your first choice of treatment?
- Type of movement
- Direction of movement
- Grade
- Duration

What do you anticipate the response being over the next 24 hours?

How do you expect the patient to present on day two?
- Symptoms
- Signs

What treatment will you choose if…
- The patient is worse as a result of the initial treatment
- The patient is the same
- Symptoms are improved, no change is signs
- Symptoms are worse, signs are improved

Selected References


