Repeated Motion Testing Techniques for the Shoulder

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Goals

- Discuss connections in pathology and symptoms
- Introduce an alternative evaluation and diagnosis system
- Demonstrate evaluation / treatment techniques
- Practice in small groups repeated motions and affect on baselines
Shoulder Epidemiology

- Approx. 20-30% in General Population
- 4 Million office visits per year for shoulder pain
  - 1.5 Million surgeries per year
- Diagnostic Tests are inconsistent at best
  - MRI is 88% effective at best
- Does shoulder pathology relate to symptoms?
- Must the shoulder have pathology in order to produce S/S
Connecting Signs & Symptoms with Diagnosis

- Left shoulder
  - Pain with movements above 90 degrees
  - Loss of strength
  - Sense of Instability
  - Decreased ROM

What injury do you suspect?
What information would you need to better diagnose?
Would this diagnosis help set your treatment plan?
Mechanical Diagnosis through repeated Motion Testing

- Classification System that drives treatment plan. 3 Types

- Articular Dysfunction
  - Intermittent pain consistently produced at a restricted end-range with no rapid change of symptoms or range
  - Examples?

- Contractile Dysfunction
  - Intermittent pain consistently produced by loading the musculotendinous unit, for instance with an isometric contraction against resistance
  - Examples?
Mechanical Diagnosis through repeated Motion Testing

- **Derangement**
  - Lasting abolition or decrease of symptoms, and/or an increase in restricted range of movement in response to repeated movements
  - Examples of pathology that can act this way?

- **Other**
  - Refers to failure to classify as one of the above mechanical syndromes, recent trauma, post-surgery or chronic pain state.
  - Examples?
Repeated Movements to Diagnose: Video Example

- Video of Shoulder Assessment
  - https://www.youtube.com/watch?v=w0kSRHACw5M
Live Demonstration & Practice

- Establish Baselines
  - MMT
  - Special Tests, etc.
- Rule Out Cervical Spine
- Assess Affect of Repeated Movements on Upper Extremity
  - Active Movement / at end-range
  - Resisted Movement
- Patterns of Derangement – (Handout)
QUESTIONS

THANK YOU


Kaneko S, Takasaki H, May. Application of Mechanical Diagnosis and Therapy to a patient diagnosed with de Quervian’s disease; a case study. J Hand Ther

Mechanical Diagnosis & Therapy: Advanced Cervical & Thoracic Spine and extremities (upper Liimb)
