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Rehabilitation Protocol

Lateral Epicondylitis Conservative Management

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Overview:

Lateral epicondylitis, also known as "Tennis Elbow", is a common overuse syndrome in the elbow. It is a tendinopathy involving the extensor muscles of the forearm; extensor carpi radialis brevis (ECRB), extensor digitorum communis (EDC), extensor carpi radialis longus (ECRL) and supinator. These muscles originate from the lateral epicondylar region of the distal humerus and with dynamic overload of this extensor mass, microscopic tearing occurs. Chronic overuse can lead to calcification, granulation tissue and avascularity developing at the muscle origin. Patients should be educated that rehabilitation *may* take between 1 and 2 years for full resolution.

◀Phase I: Acute Pain

Goals:

- Decrease pain and inflammation
- Maintain or obtain full musculoskeletal ROM and excursion
- Increase patient knowledge of their task specific ergonomics and body mechanics

Orthotic:

- Wrist immobilization orthosis, counterforce brace, taping techniques and/or a combination throughout the day

Precautions:

- Avoid inflammation and pain response through extensor mass

Treatment:

- Orthosis management
- Skilled manual treatment
- Modalities such as heat, ice, ultrasound
- Activity modification and body mechanics education including promotion of lifting techniques using wrist flexors and avoiding long lever arm wrist extension activation
- Gentle extrinsic ROM within pain free range

◀Phase II: Sub-acute (*Grade rehab progression based on tissue response and clinician discretion*)

Goals:

- Decrease pain and inflammation
- Maintain or obtain full musculoskeletal ROM and excursion
- Increase patient knowledge of their task specific ergonomics and body mechanics
- Develop a proximal strengthening program as needed
- Decrease reliance on immobilization to improve healthy tissue excursion to promote healing

Orthotic:

- Intermittent orthoses management that may include custom or prefabricated
- Continued night use as indicated

Precautions:

- Avoid inflammation and pain response through extensor mass
- Avoid heavy lifting and gripping tasks causing pain

Treatment:

- Modalities such as heat, ice, ultrasound
- Pain free ROM exercises gradually increasing stretch to extensor mass
- Wean from orthosis for light ADL's/ IADL's
- Assess and prescribe proximal strengthening exercises accordingly

◄Phase III: Strengthening

Goals:

- Decrease reliance on immobilization to improve healthy tissue excursion to promote healing
- Increase strength and endurance of wrist extensor muscles
- Increase proximal strength and stability with continued focus on proper body mechanics and activity modification strategies

Orthotic:

- Taping techniques and counterforce brace during dynamic and loaded tasks

Precautions:

- It is critical that the strengthening **not** cause pain along the area of the lateral epicondyle

Treatment:

- Initiate progressive resistance exercises to wrist and forearm
- Begin with isometric strengthening, progress to eccentric strengthening and then concentric strengthening
- Facilitate periscapular strengthening
- Gradual return to activities- IADL's, work and leisure with improved biomechanics

◄Phase IV: Long Term Management

Goals:

- Reduce recurrence of symptoms (pain, inflammation and microtrauma)

- Ensure understanding of management strategies to prevent recurring symptoms

Orthotic:

- Continued use of counterforce brace/and or taping techniques during dynamic and loaded tasks

Precautions:

- Patient may need to continue to manage symptoms long term (1-2 years) to see full resolution and return to full activity
- Activity should **not** cause pain along the area of the lateral epicondyle

Treatment:

- Consider work equipment adaptations
- Reinforce warming up prior to participating in the given occupation
- Gradual return to prior level of physical activity
- Continue core, proximal and periscapular strengthening and body mechanics education
- Transition to HEP as instructed by therapist

References:

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