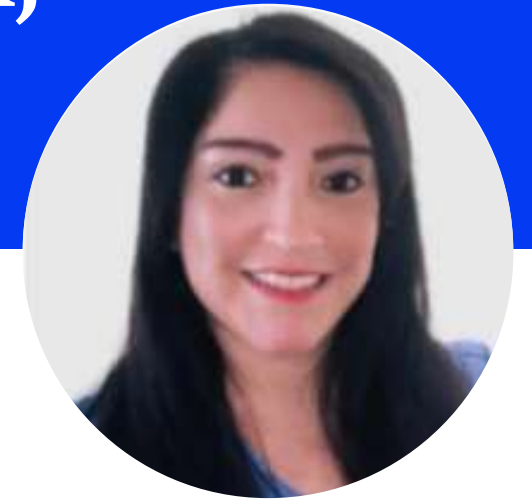


Pickleball is Life: Injury Risk, Prevention & Rehabilitation

Christine Licata PT, DPT



Goals of Webinar

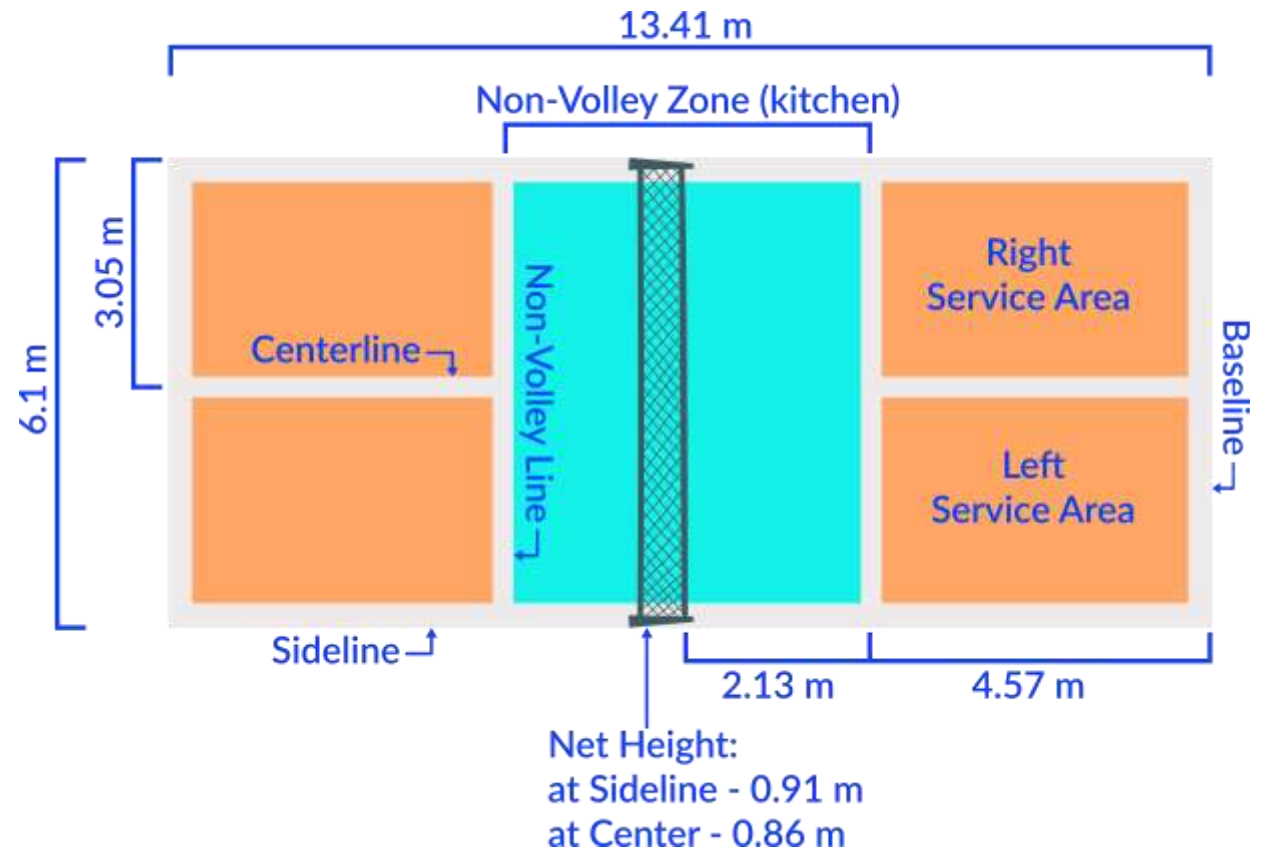
- Identify injury trends in the pickleball athlete community
- Discuss injury risk factors
- Explore key components of rehabilitating the pickleball athlete
- Review patient education, home exercise programs and injury prevention strategies

History of Pickleball

- Developed in 1965 by Joel Pritchard (former Washington state congressman) in Bainbridge Island, WA
- Origin of the name “Pickleball”
- As of 2024, **4.8 million** people in the US are involved in playing pickleball
- Average age 35-year-old
- **50,000** designated places to play in the US
- Pickleball global market is **\$1.6 million**

Rules of the Game

- Service
 - Underhand
 - Contact made at the waist or below
 - Two-Bounce rule
 - Cannot land in the kitchen or on the kitchen line
- Scoring
 - Only the serving team can score points
 - Most games are played to 11, 15, or 21
 - Win by 2
- “The Kitchen”
 - The non-volley zone
 - May hit the ball while standing in the kitchen only if the ball lands in the kitchen first
- “Dinking”
 - Volleying at the kitchen line



Equipment

- Hard Polymer Ball
 - Travels at speeds of up to 20-40 mph
 - Indoor vs outdoor ball
- Paddle
 - Avg weight 0.78-0.935 oz
 - Carbon Fiber
 - Pro: light weight and allows for spin
 - Con: less power (player needs to generate more power themselves)



Equipment

- Fiberglass
 - Pro: Balance between power, control & spin
 - Con: Smaller sweet spot
- Graphite
 - Pro: Combination of control and pop
 - Con: Too light, does not absorb as much shock when striking the ball
- Kevlar, Wood Composite, Composite Hybrid & Aluminum

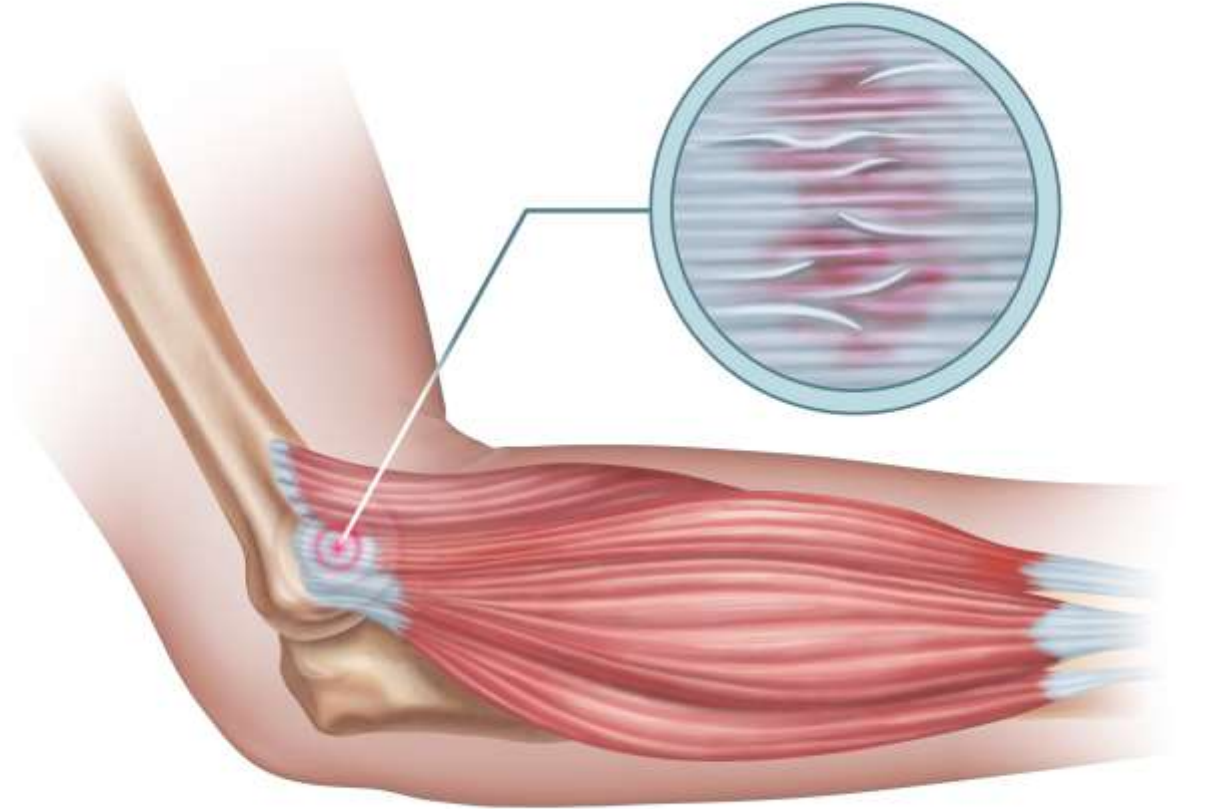
Injury Trends

- Mechanism of Injury
 - Repetitive UE motion: Gripping & swinging
 - Slips, falls, trips & dives
 - Planting and twisting
 - Repetitive Impact (UE & LE)
- Injury Classification
 - Strains
 - Sprains
 - Fractures

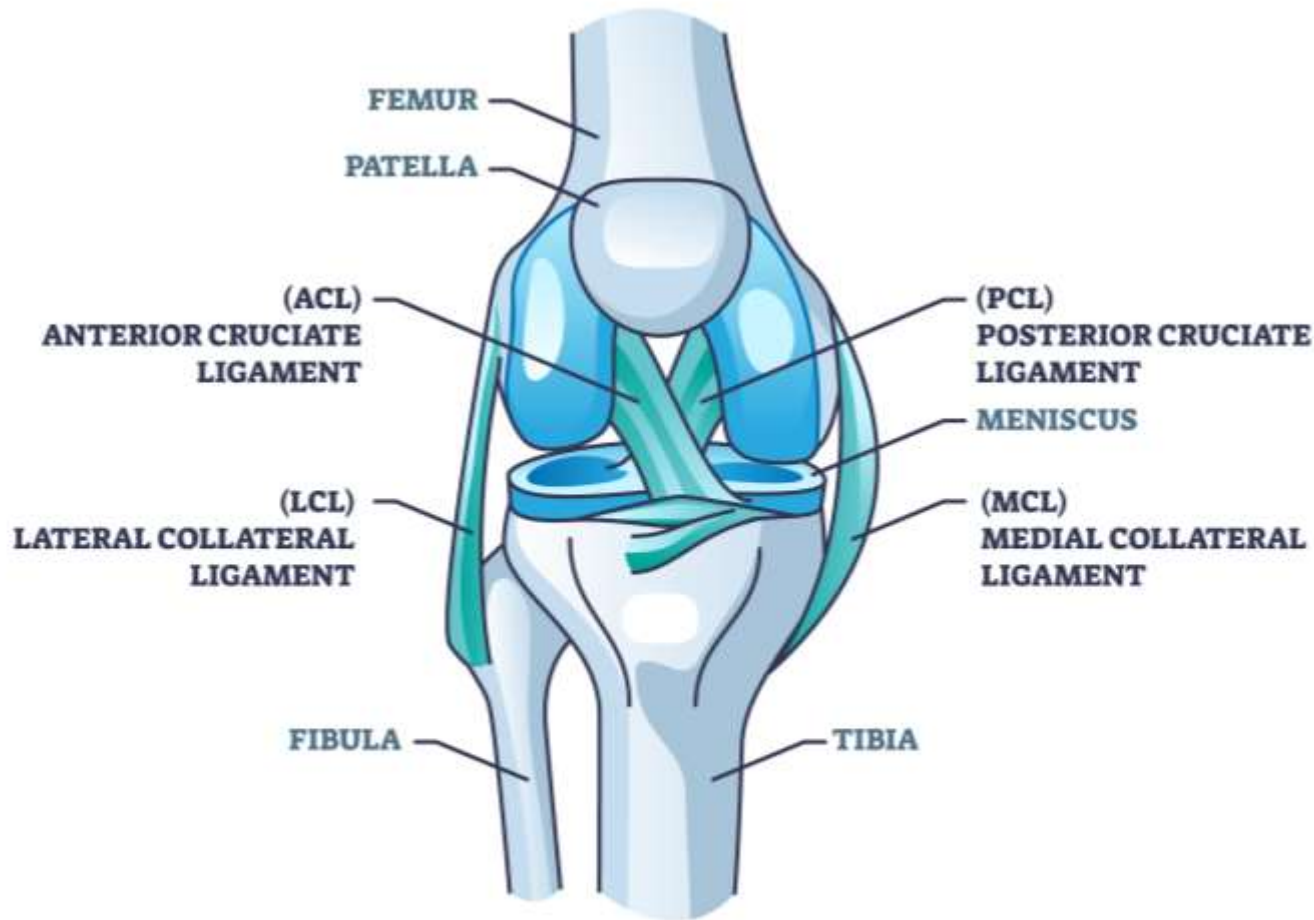


Injury Trends

- Face/Head
 - Ocular Injuries
- Spine
 - Back Strain
- Upper Extremity
 - Shoulder
 - Elbow
 - Lateral Epicondylitis
 - Wrist & Hand
 - Distal Radius Fracture



Injury Trends



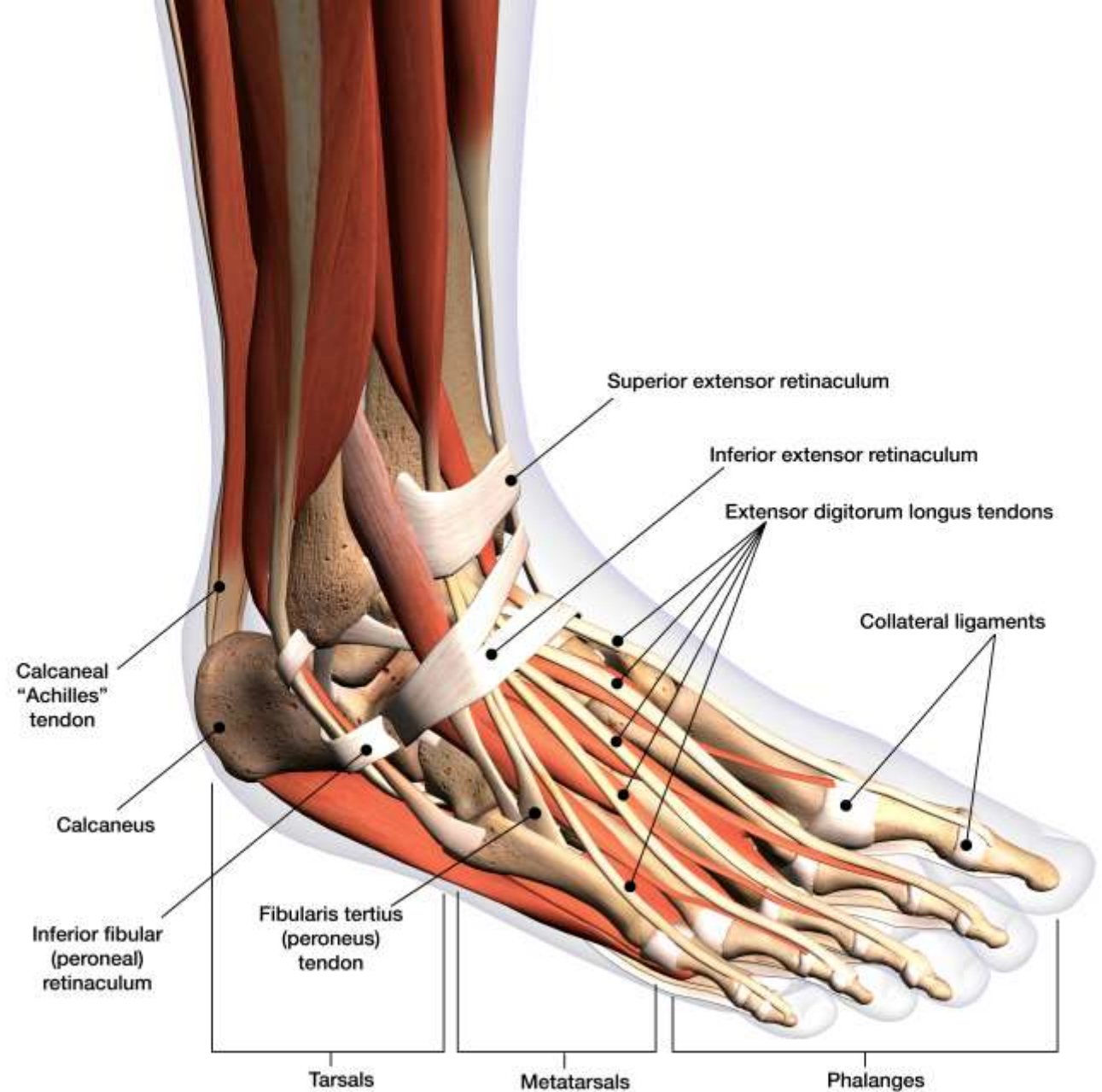
Lower Extremity

- Knee
 - Meniscal Pathology
 - Patellar Tendinopathy
 - MCL Sprains
 - Osteoarthritis flares
- Ankle
 - Lateral Ankle Sprains
 - Achilles Tendonitis

Injury Trends

Foot

- Plantar Fasciitis
- Calcaneal Tendinitis
- 5th Metatarsal Fractures



Rehabilitation: Evaluation

Joint mobility

- Thoracic Spine
- Hip
- Ankles

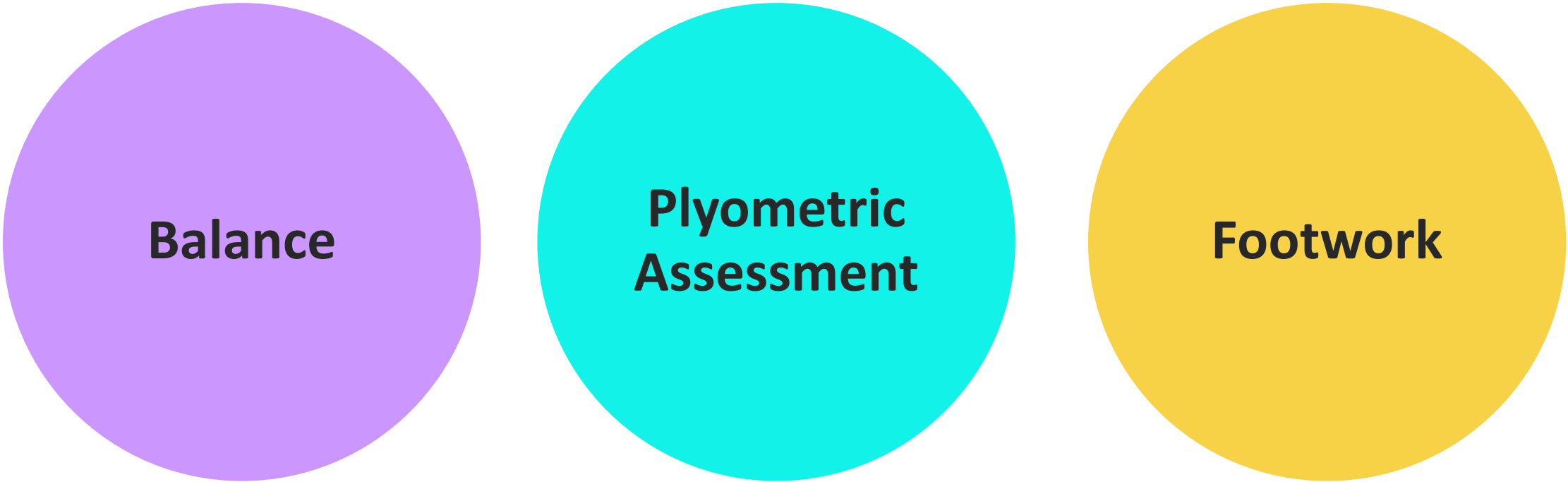
Strength

- Hip adductors
concentric & eccentric
- Obliques
- Quadriceps (eccentric,
endurance, concentric)

ROM

- Thoracic Spine ROT
- Shoulder ER/IR
- Wrist Extension

Rehabilitation: Evaluation



Balance

**Plyometric
Assessment**

Footwork

Rehabilitation: Treatment

- Movement Demands
 - Split Step or ready position
 - Forward, backward & lateral movement
 - Quick pivots, lunges & ballistic movements
 - Squat with lumbar flexion & rotation --“Dinking Battles”
- UE
 - Flexibility
 - Pec, biceps, forearm
 - Strengthening
 - Eccentric & concentric shoulder strengthening (overhead AND waist level)
 - Wrist extension strength & endurance
 - Forearm strengthening and Grip endurance with elbow flexed & extended

Rehabilitation: Treatment

- Lower Extremity
 - Flexibility
 - Adductors, hamstrings, gastric, soleus, piriformis
 - Strengthening
 - Adductors, hamstrings, quadriceps, soleus, gastric
- Balance
 - Single & Double limb
- Agility
 - Footwork

Patient Education

Paddle

- Demos
- Speak with a pro
- Avoid cheap paddles!
- Grip
- Weights

Footwear

- Proper fit
- Limit excess sliding or friction between the shoe and foot
- Court Shoe
- Tread
- Provides adequate non-sagittal plane motion support

Patient Education



- Eye Protection
 - Goggles
- Orthopedic Bracing
 - Prevent valgus knee stress
 - Foot orthotics

Injury Prevention

“There is very little published evidence that describes validated injury prevention techniques specific to pickleball. However, from what is known from other established racquet and paddle sports, and by way of movement demands analyses, recommendations can be provided that would benefit pickleball players.”

-Stroesser, Mulcaster, Andrews



Injury Prevention

- Lesson or Educational Clinic
- Outdoors vs Indoors
 - Heat Index
 - Sun Protection
- Optimal Hydration
 - Pre, During & Post
- Electrolyte Repletion

Injury Prevention

- Proper warm-up
 - Dynamic warm-up
 - Include maximizing shoulder ROM & Quadriceps activation
- Recognizing own physical limitations
- Frequent rest breaks





Thank you!

Questions?

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