

ACA Webinar Series 2021 - 2022

Boot fitting, the Ankle and Functional Foot





INJURY



- Alpine skiing – high injury rate
- World Cup
 - 23.5-36.7 injuries per 100 athletes per season
- Most commonly injured
 1. Knee
 2. Lower back, lower leg/foot and ankle
- Time-loss
 - Majority classified as moderate (8-28 days) or severe (>28 days)



INJURY



- Incidence

- Downhill > Super-G > GS > Slalom

- Most common cause of injury

- Downhill / Super – G – Increased Speed, jumping, fatigue
- GS / Slalom – High loads during turning

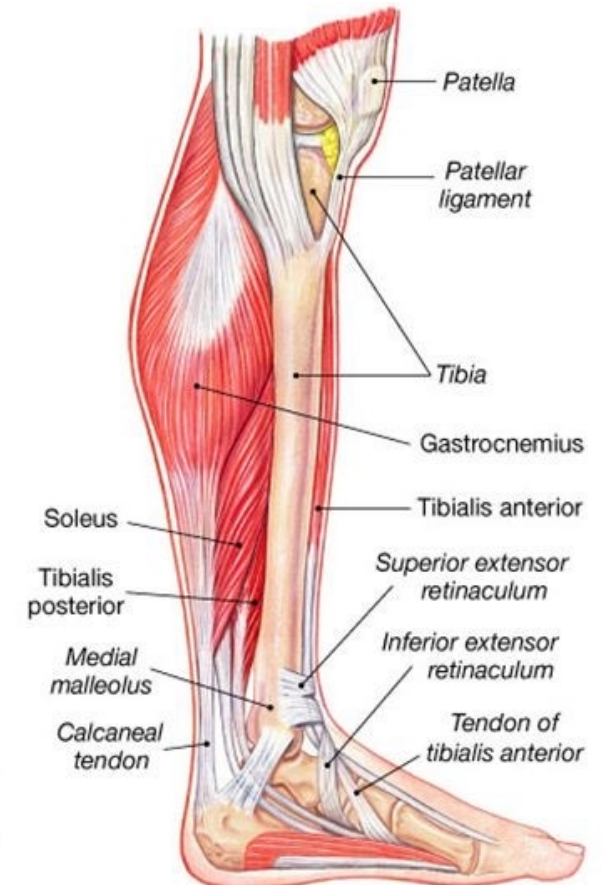
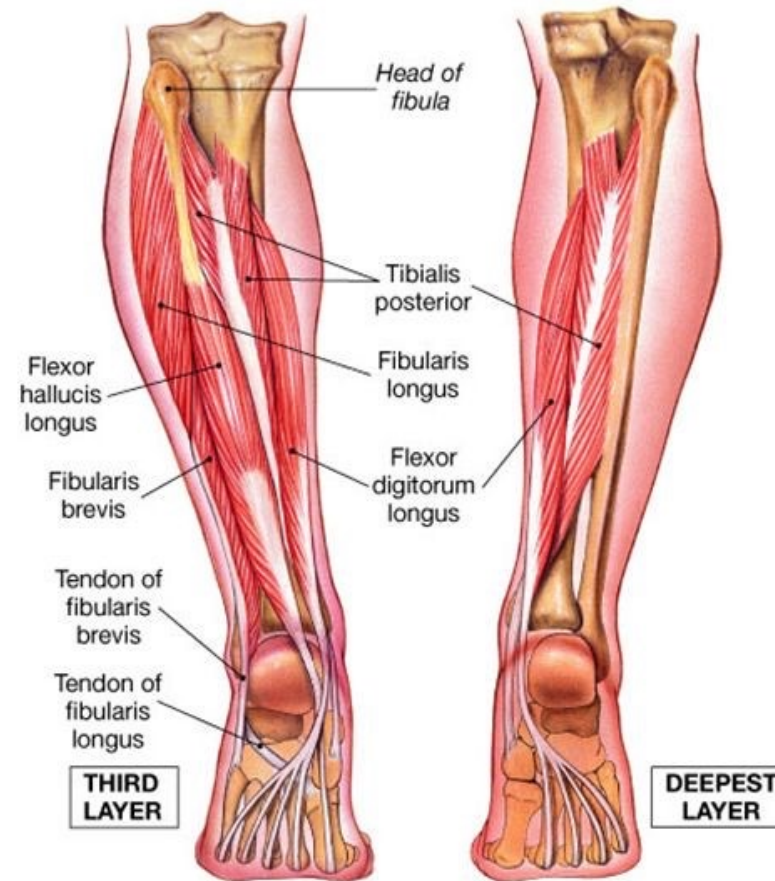
** In youth GS (56%) / Slalom (31%) / Super – G (13%)*

- Nearly half during competition

- 'Falling out of balance situations'
- Misjudgment, fatigue, inattention, challenging course settings, poor visibility

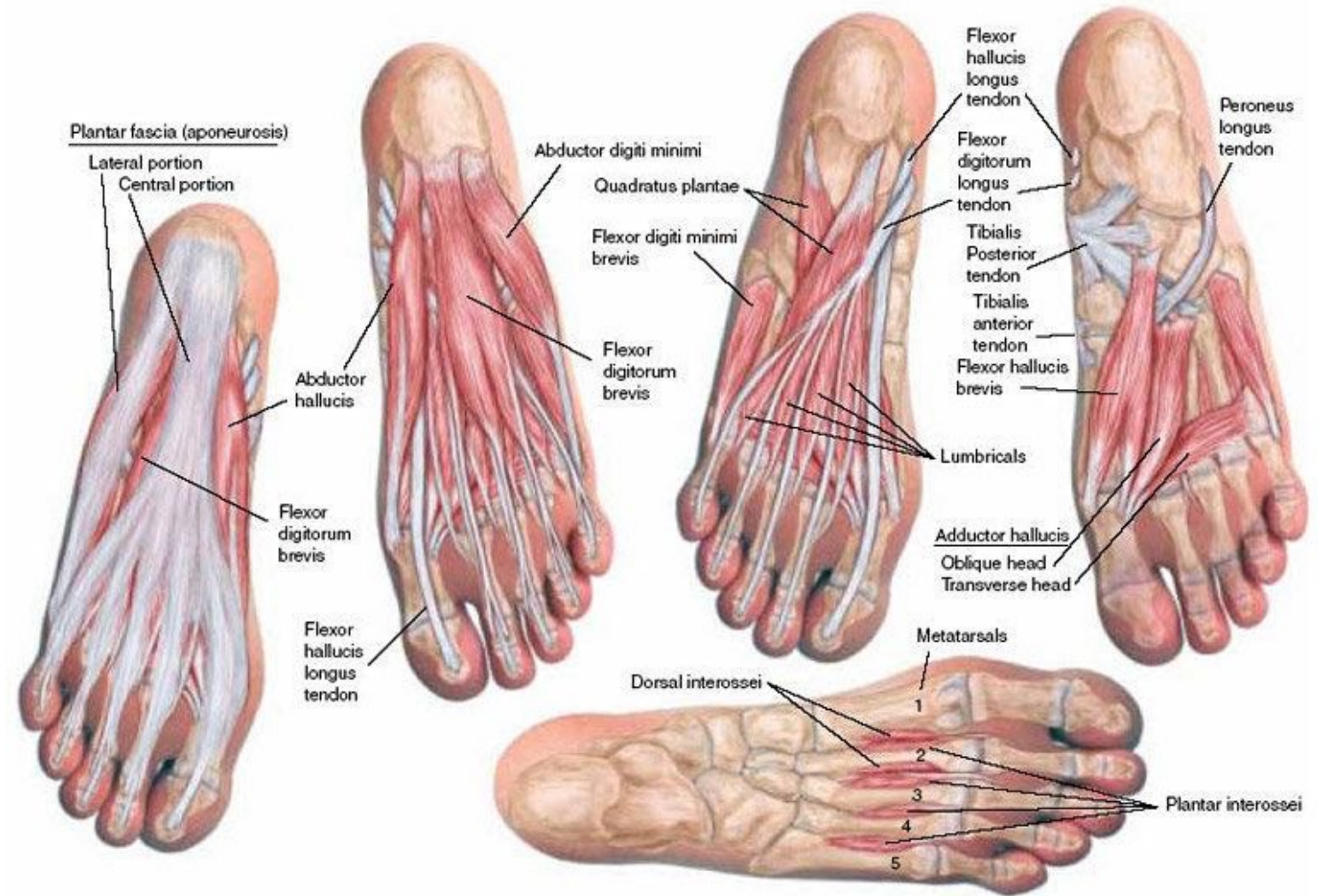


ANATOMY





ANATOMY





REQUIREMENT TO BUILD CAPACITY

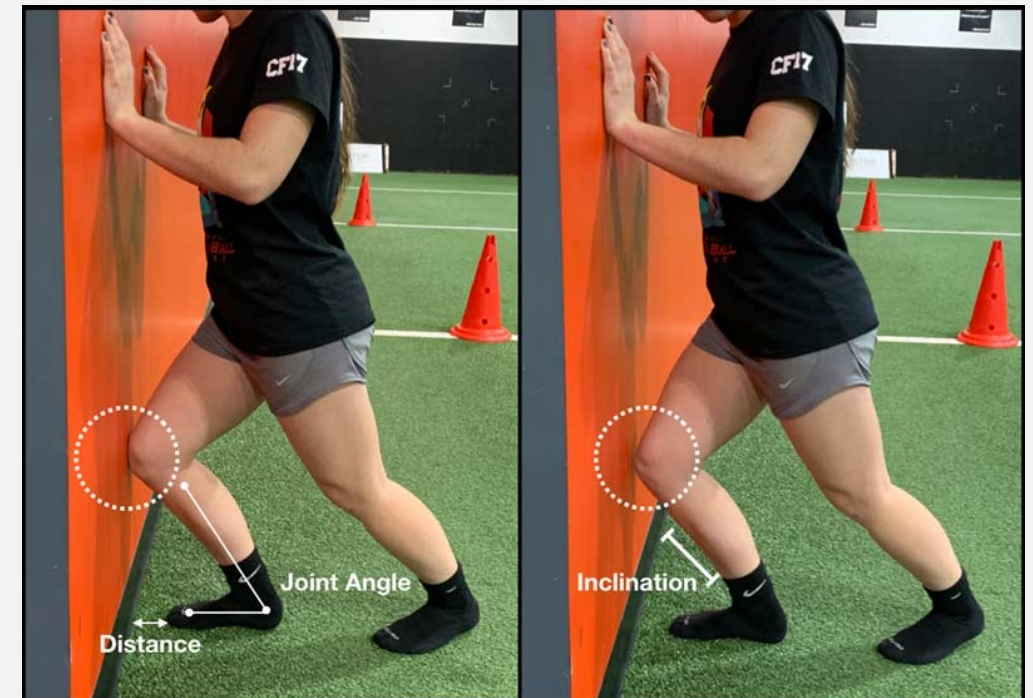
- Strength
- Power
- Rate of force development
- Motor control
- Balance
- Proprioception





ASSESSMENT

- Ankle range of motion
 - Knee to wall test
 - Distance / Symmetry / Quality





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ASSESSMENT

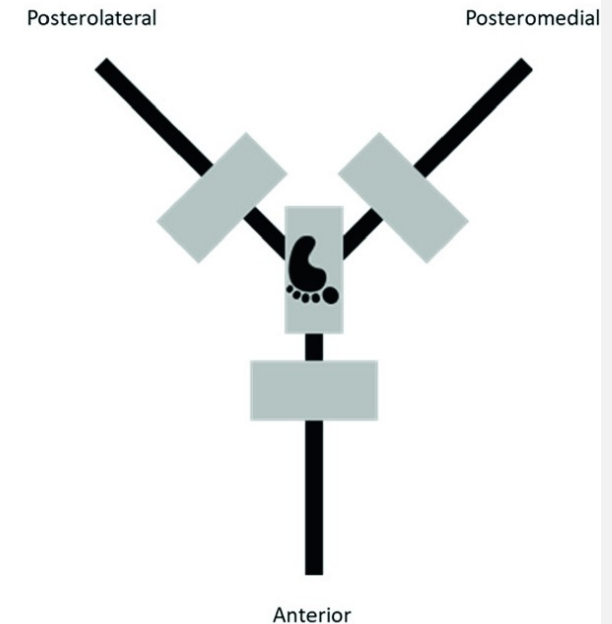
- Ankle range of motion
 - Knee to wall test
 - Distance / Symmetry / Quality
- Capacity
 - Calf endurance test
 - Score / Symmetry / Quality





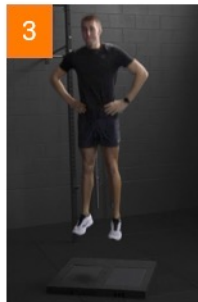
ASSESSMENT

- Ankle range of motion
 - Knee to wall test
 - Distance / Symmetry / Quality
- Capacity
 - Calf endurance test
 - Score / Symmetry / Quality
- Balance
 - Modified star excursion / Y-balance test





MORE IN DEPTH ASSESSMENT...



IMPLEMENTATION

- Ankle Range of Motion
 - Mobility
 - Stretching
 - Joint mobilisation





IMPLEMENTATION

- Ankle Range of Motion
- Coordination / Motor control





IMPLEMENTATION

- Mobility
- Coordination / Motor control
- Strength
 - Overall(Calf – 60-90 flexion in squat)





IMPLEMENTATION

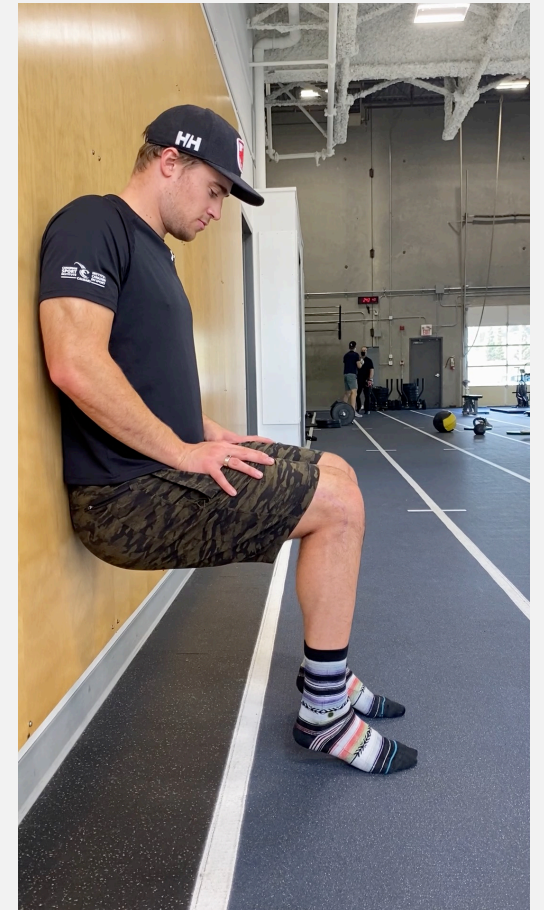
- Mobility
- Coordination / Motor control
- Strength
 - Overall
 - Joint specific





IMPLEMENTATION

- Mobility
- Coordination / Motor control
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IMPLEMENTATION

- Mobility
- Coordination / Motor control
- Strength
 - Overall
 - Joint specific
 - Advanced





IMPLEMENTATION

- Mobility
- Coordination / Motor control
- Strength
 - Overall
 - Joint specific
 - Advanced
- Strength application





IMPLEMENTATION

- Mobility
- Coordination / Motor control
- Strength
 - Overall
 - Joint specific
 - Advanced
- Strength application





SUMMARY



- Assess
 - Ankle range
 - Capacity
 - Balance
- Implement
 - Simple
 - Consistency is key
 - Frequency

