



Performance
Physical Therapy

Don't Let
Knee Pain
Slow You
Down



Performance
Physical Therapy

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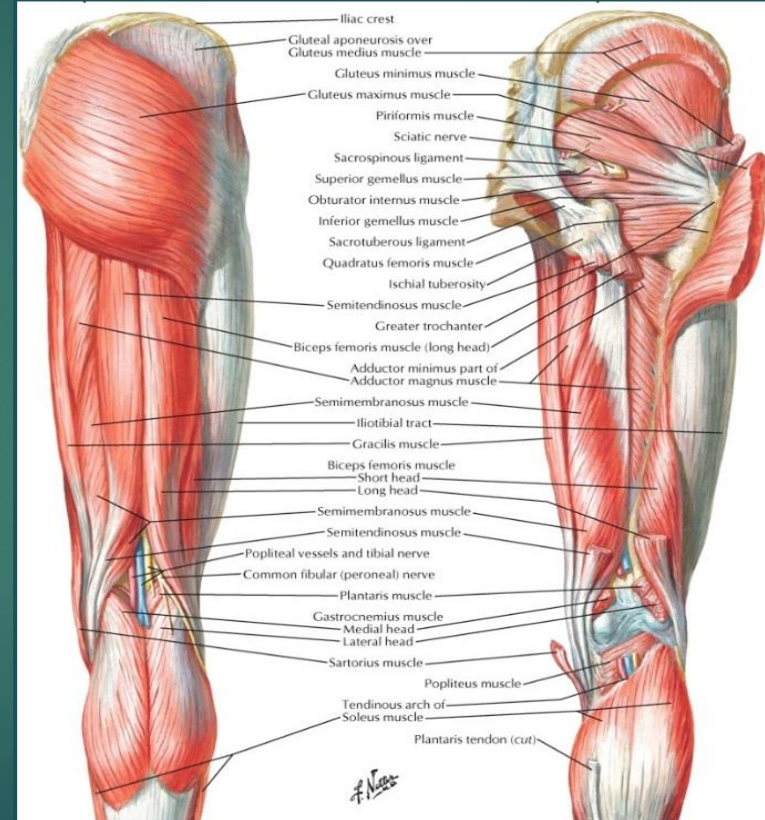
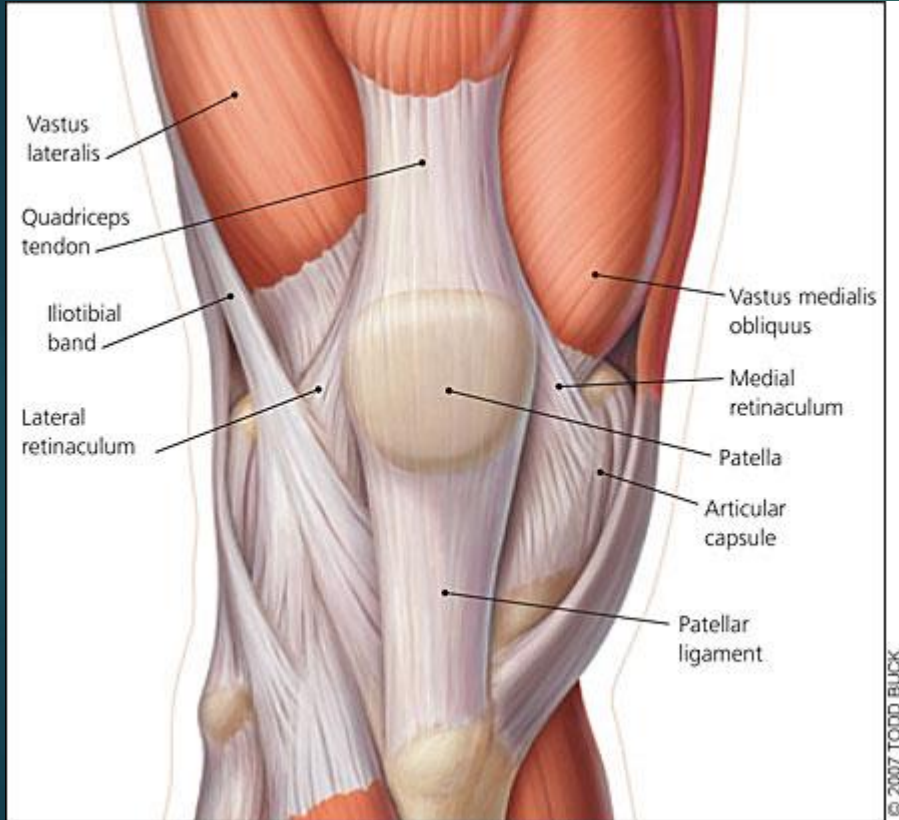
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Anatomy of the Knee



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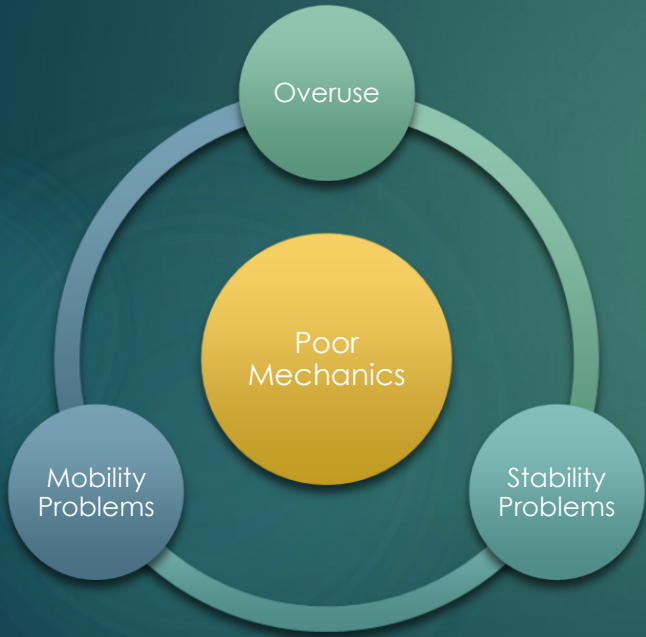
Common Knee Injuries?

- ▶ ITB Friction syndrome
- ▶ Meniscus tear
- ▶ Patellar/ quadriceps tendinopathy
- ▶ ACL, PCL, LCL, MCL sprains/ tears
- ▶ Patellofemoral syndrome
- ▶ Knee arthritis
- ▶ Fat pad syndrome
- ▶ Bursitis
- ▶ etc....



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Causes of Knee Injuries in Runners



Bottom line for Knee Pain

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graph TD; A[Just identifying the irritated tissue does not help to resolve the underlying cause of your knee pain.] --> B[Never chase or mask the pain.]; B --> C[If pain continues get help from your physical therapist to find the underlying cause.];
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Just identifying the irritated tissue does not help to resolve the underlying cause of your knee pain.

Never chase or mask the pain.

If pain continues get help from your physical therapist to find the underlying cause.

What we will cover

How to assess and improve
your knee stability

How to assess and improve
your hip mobility and strength

Review - How to assess and
improve your ankle mobility

How to assess your LE power



Normal



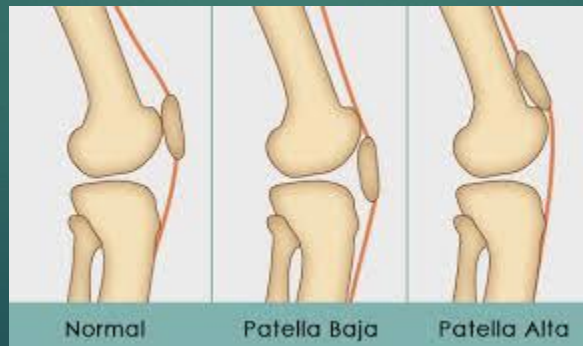
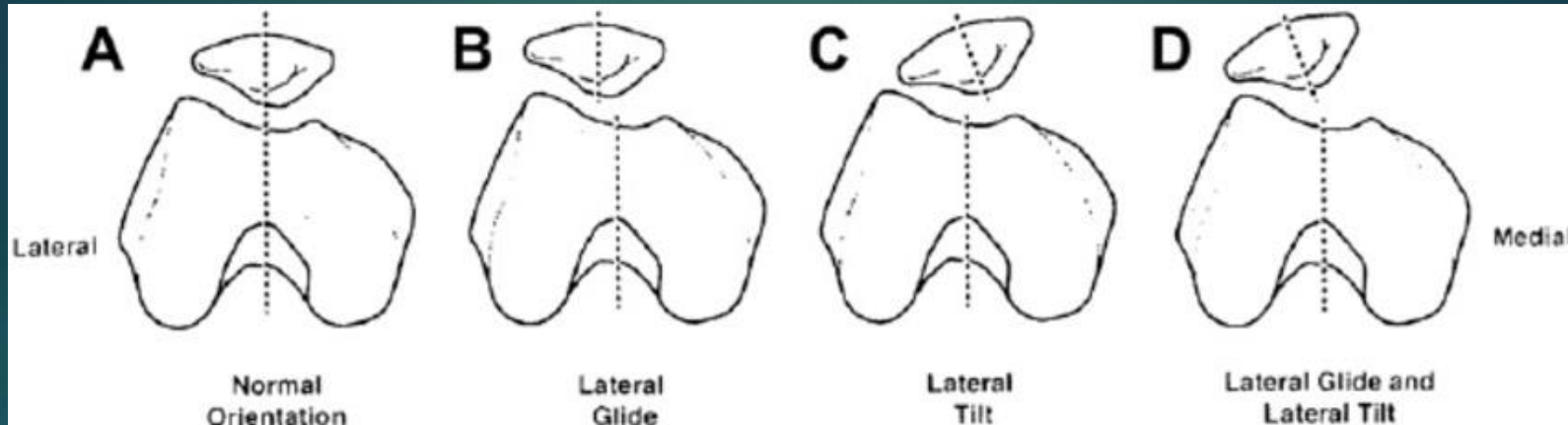
Varus



Knock knees (valgus)

Standing Position

Patella Position





We cannot change our
knee structure, but we can
improve support structures
and mobility impairments at
the surrounding joints.

Hip Mobility Testing

Wall Hip Extension Test



Pass	Fail	Corrections
<ul style="list-style-type: none">- Attaining position in picture above without lower back arching, trunk rotating, or feeling pain in knee/ back/ hip	<ul style="list-style-type: none">- Unable to attain position- Pain in knee/hip/ankle or lower back	<ul style="list-style-type: none">- Foam Roller - Lower Body- Brettzel- Hip Flexor Stretch with Side Bend

Hip Mobility Testing

Active Straight Leg Raise Test



Pass	Fail	Corrections
<ul style="list-style-type: none">- Moving leg rises above 80 degrees with knee straight to 20 degrees flexion- Opposite leg stays flat on the ground	<ul style="list-style-type: none">- Back or leg pain/ Shooting pain- Unable to rise above 80 degrees- Unable to keep back flat on ground- Unable to keep leg flat on ground	<ul style="list-style-type: none">Passive Leg LoweringReverse Toe TouchesFoam Roller - Lower Body

Hip Stability - ½ kneeling balance

Kneeling Balance Test



Pass	Fail	Corrections
<ul style="list-style-type: none">- Able to balance with front and back leg in a straight line for 30 seconds	<ul style="list-style-type: none">- Loss of balance- Need to lift arms to the side for balance- Unable to hold for 30 seconds	<ul style="list-style-type: none">- See previous stability exercises- Chop - No Rotation Half-Kneeling- Chop - No Rotation to Rotation Half-Kneeling- Chop - Resisted No Rotation Half-Kneeling- Chop - Rotation with PA Half-Kneeling

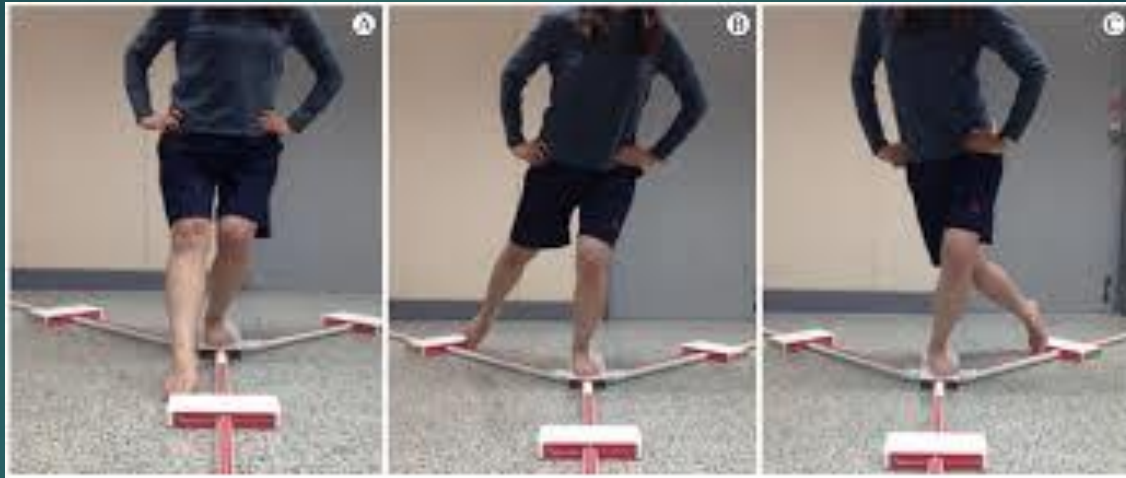
Dynamic Knee Stability - Lunge Assessment

Lunge Test



Pass	Fail	Corrections
<ul style="list-style-type: none">- Able to forward lunge and return without loss of balance- Knee does not pass in front of toes- Knee does not drop inward- Trunk stays erect throughout	<ul style="list-style-type: none">- Loss of balance- Knee drops inward- Hip/ knee/ ankle do not stay stacked in a straight line- Pelvis drops- Pain	<ul style="list-style-type: none">- See previous stability exercises- Lunge Holds- Lunge with Twist- Lunges- Resisted Lunges - Low Anchor

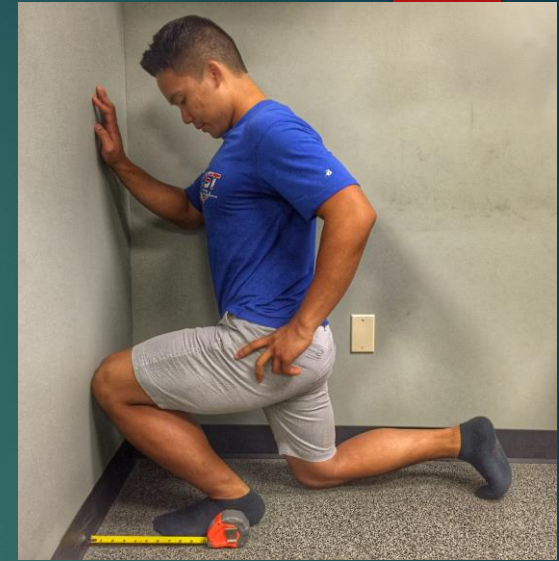
Static Knee stability Testing = Y Balance Test



Pass	Fail	Corrections
<ul style="list-style-type: none">- Maintain balance- No pain reported- < 4 cm when comparing legs in each direction	<ul style="list-style-type: none">- -Knee pain- Fall/ loss of balance- Foot touches ground to attain balance before final measurement- > 4 cm difference in each plane	<ul style="list-style-type: none">- <u>Covered during workshops</u>

Ankle Mobility Testing Review

Kneeling Ankle Dorsiflexion Test



Pass	Fail	Corrections
Knee touches wall (toes 3 inches away)	<ul style="list-style-type: none">- Knee does not touch wall- Pain in front/back of the ankle	Half-Kneeling Calf Stretch <ul style="list-style-type: none">- Gastroc and soleus stretches Foam Roller - Lower Body

Lower Extremity Strength and Power Test

Triple Hop for Distance Test



Pass	Fail	Corrections
<ul style="list-style-type: none">- Jump 3x on one foot for distance- Able to jump same distance or within 80% of distance of other leg	<ul style="list-style-type: none">- Loss of balance- Unable to attain same distance (or 80%) with both legs- Pain	<ul style="list-style-type: none">- See PT of local personal trainer to improve strength / power

What did we learn today?



Seek Help

Get help if you are in pain. Don't mask or run through the pain.



Be Aware

Be aware of your daily posture and daily shoe wear choices.



Tools

Use appropriate mobility tools



Move

Incorporate specific hip mobility drills into your regimen



Get Strong

Incorporate specific hip strength/ stability into your regimen



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For More Information Please Visit:
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