



# Fit to Run

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Performance  
Physical Therapy

# What will you learn today?



Is there anything holding you back from your best running?



How to perform a dynamic warm up



Understanding the role of running mechanics



How to assess your own mobility and stability



Top exercises to improve and maintain YOUR mobility, stability and strength



When to seek assistance for injury



Resulting in....

Maximized running efficiency

Reduced risk of injury

# Running Injuries

Up to 70% of recreational and competitive runners suffer an overuse injury in a 12-month period.

- Patella Femoral Pain Syndrome (PFPS) 40%
- Anterior Tibialis Tendinitis (Shin Spints) 12%
- Iliotibial Band Syndrome (ITBS) 12%
- Achilles Tendinitis 11%
- Plantar Fasciitis 10%
- Hamstring Strain 7%
- Stress Fracture 6%



Research  
has given  
us the  
answers!

Too much  
training

Too little  
training

Being a heel  
striker

Being a toe  
runner

Too much shoe  
cushioning

Too little shoe  
cushioning

Being too old

Being too young

Running on a  
treadmill

Running on the  
road

Being female

Being male

Being  
overweight

Being  
underweight

Not stretching  
enough

Stretching too  
much

Overpronating

Underpronating

Drink too little  
water

Drinking too  
much water

*Searching for Injury  
Causation...*

- Too much too soon
- Failure to recognize symptoms
- Changes in routine
- Changes in shoe wear
- Changes in diet
- Changes in surface
- Sometimes its just one straw too many



# Best Practices for Runners

Have a plan (running, strength, mobility, recovery and nutrition)

Get the right gear (shoes, mobility tools, weights/ bands, apps, etc.)

Perform a dynamic warm up

Practice good form running

Incorporate a strength, stability and power routine based on your limitations

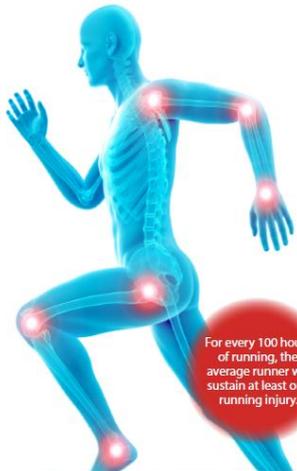
Incorporate a mobility routine based on your limitations

Recovery



# Performance Physical Therapy

## RUNNING ANALYSIS



For every 100 hours of running, the average runner will sustain at least one running injury.

Everything You Need  
to Know



### Chi-Running Clinic

Tuesday, September 24, 2019  
5:30 PM - 7:30 PM  
Rhode Runner (map)  
Google Calendar - iCS  
Run Better, Without Injury

Do you enjoy running, but always  
Then I made you to to the flow of  
fitness and experience, and thus  
the movement principles from the  
approach to fitness.

You don't need to be in full run

# Good Running Form

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Dynamic/Active  
Warm Up

Toe Walk

High  
Knees

Butt Kicks

Heel Walk

Bound

Squats

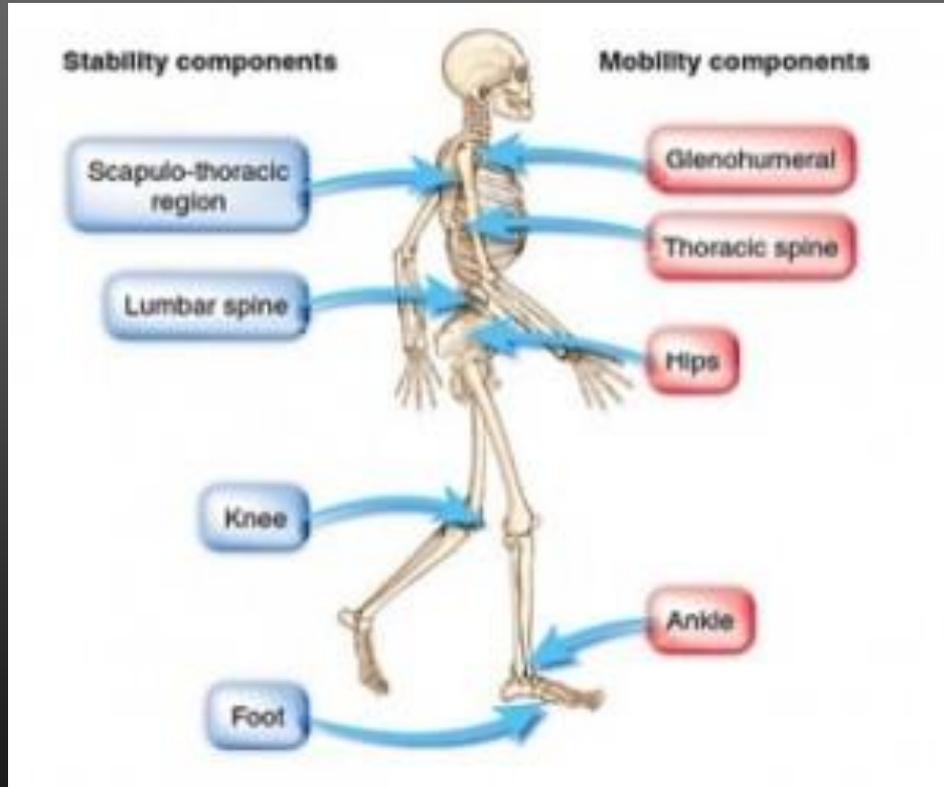
Rhythm  
Skip

Hip Circles  
in/out

Quick  
Skips

Microwave  
Warm Up

# How to Assess your own Mobility and Stability Joint By Joint Approach



# Ankle Mobility Testing

## Standing Vs Kneeling Ankle Dorsiflexion Test



Pass	Fail	Corrections
Knee touches wall (a fists length away or 2 inches)	<ul style="list-style-type: none"><li>- Knee does not touch wall</li><li>- Pain in front/back of the ankle</li></ul>	<a href="#">Half-Kneeling Calf Stretch</a> Gastroc and soleus stretches <a href="#">Foam Roller - Lower Body</a>

# Hip Mobility Testing

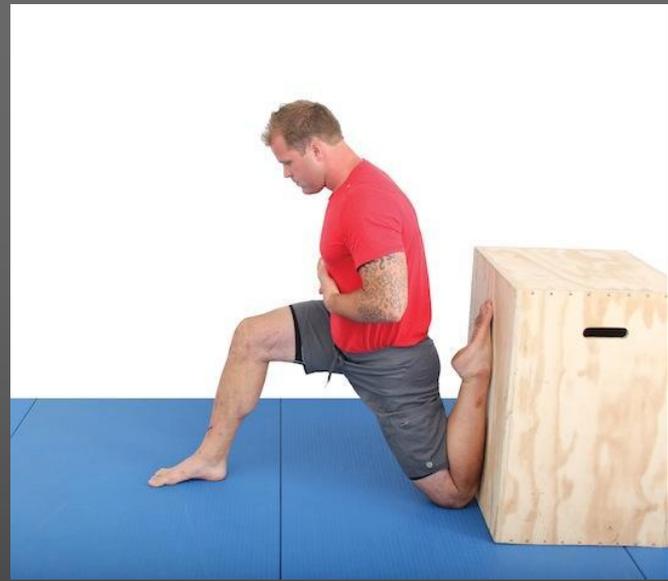
## Active Straight Leg Raise Test



Pass	Fail	Corrections
<ul style="list-style-type: none"><li>- Moving leg rises above 80 degrees with knee straight</li><li>- Opposite leg stays flat on the ground</li></ul>	<ul style="list-style-type: none"><li>- <b>Back or leg pain</b></li><li>- Unable to rise above 80 degrees</li><li>- Unable to keep back flat on ground</li><li>- Unable to keep leg flat on ground</li></ul>	<ul style="list-style-type: none"><li><a href="#">Passive Leg Lowering</a></li><li><a href="#">Reverse Toe Touches</a></li><li><a href="#">Foam Roller - Lower Body</a></li></ul>

# Hip Mobility Testing

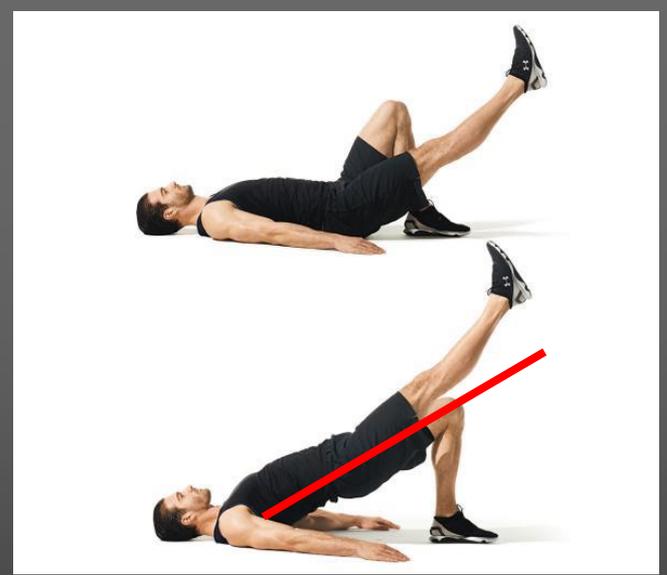
## Wall Hip Extension Test



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

# Posterior Stability Testing

## Single Leg Bridge Test



Pass	Fail	Corrections
<ul style="list-style-type: none"><li>- You can lift body so that there is a straight line from knee to shoulder</li><li>- Pelvis does not drop or rotate</li><li>- Easily hold for 20 seconds</li></ul>	<ul style="list-style-type: none"><li>- Cannot lift to parallel</li><li>- Pelvis drops</li><li>- Cramping in hamstring or lower back</li><li>- Cannot hold for 20 sec</li><li>- <b>Pain in hip/ lower back</b></li></ul>	<ul style="list-style-type: none"><li>- <a href="#">Bridge with Pattern Assistance</a></li><li>- <a href="#">Bridge (Palms Down)</a></li><li>- <a href="#">Bridge (Palms Up - Neutral Pelvis)</a></li><li>- <a href="#">Bridge Matrix - 1</a></li><li>- <a href="#">Bridge Matrix - 2</a></li><li>- <a href="#">Bridge Matrix - 3</a></li><li>- <a href="#">Bridge With Arms Up</a></li></ul>

# Anterior/Lateral Stability Testing

Modified Bunkie testing

Single leg Plank Tests (Front and side planks)



Pass	Fail	Corrections
<ul style="list-style-type: none"><li>- Spine stays neutral throughout</li><li>- Able to hold at least between 20-40 sec without compensation</li></ul>	<ul style="list-style-type: none"><li>- Holds breath</li><li>- Too much movement in pelvis and spine</li><li>- Pain</li><li>- Unable to hold 20-40 sec/ side</li></ul>	<ul style="list-style-type: none"><li>- Planks</li></ul>

# Functional Movement/ Strength and Power Tests

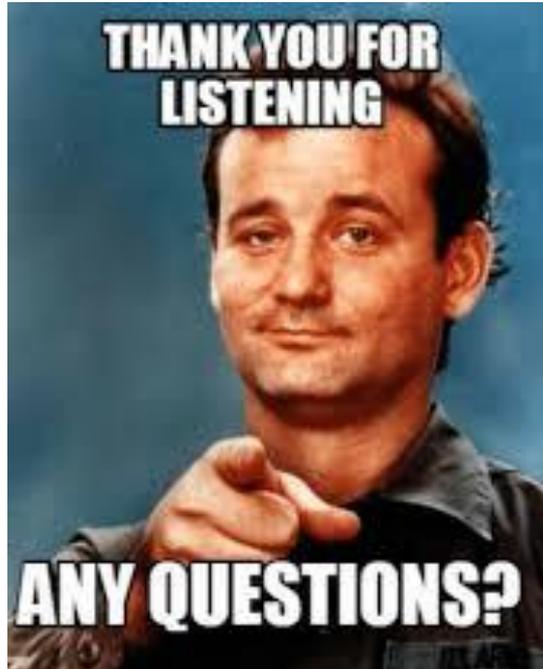
## Lunge Test



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

This is the last slide!

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