

# FILEX 2011



ACTIVE ANATOMY!

## The Hip External Rotators

presented by:

**merrinmartin**

B.App.Sc.(Physiotherapy)

B.Sp.Sc.(Exercise Science)

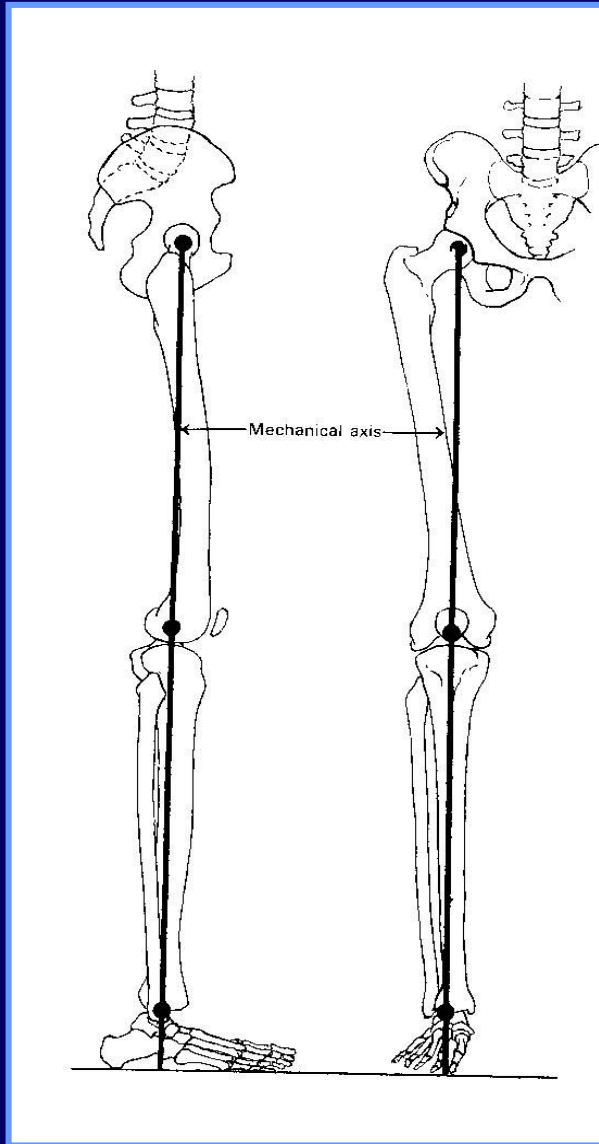
Cert IV Fitness

Cert IV Workplace Assessment & Training

Cert IV Pilates Instructor

M.A.P.A

# OPTIMAL LEG ALIGNMENT



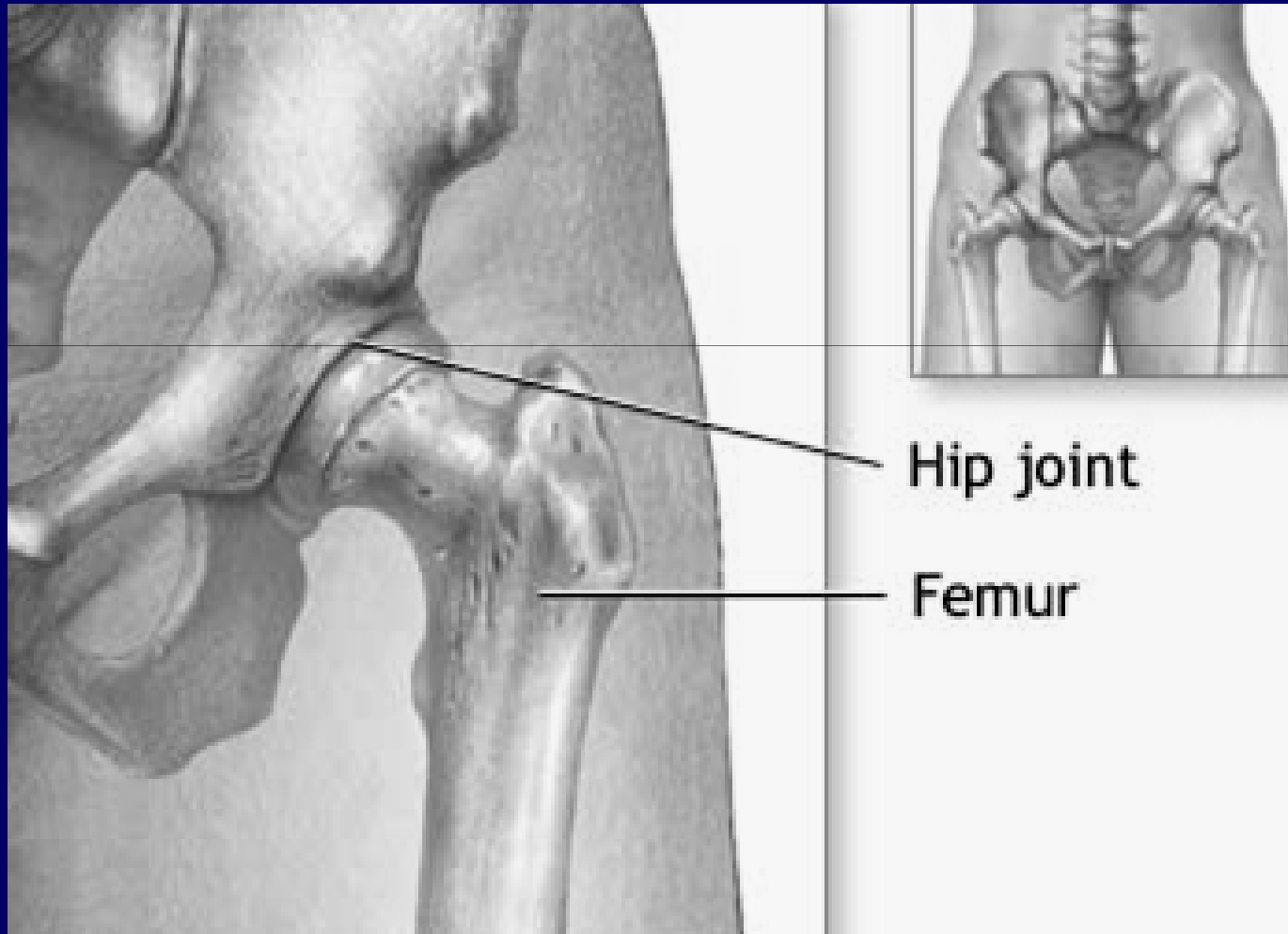
- Hip
- Mid Patella
- Second Toe

# GLUTEUS STRENGTH - 3 COMPONENTS

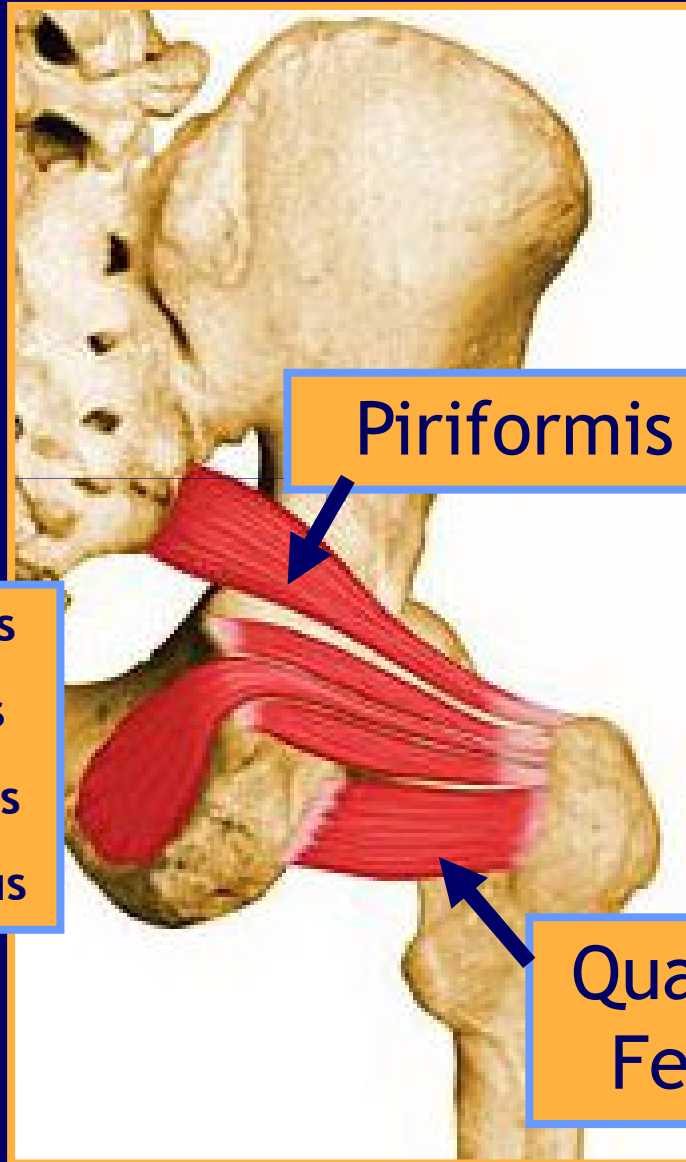
1. External Hip Rotators
2. Hip Abductors
3. Hip Extensors

All are essential in the never ending  
fight against gravity!

# HIP ANATOMY



# EXTERNAL HIP ROTATORS



Piriformis

Superior Gemellus  
Inferior Gemellus  
Obturator Internus  
Obturator Externus

Gluteus medius  
posterior fibres

Quadratus  
Femoris

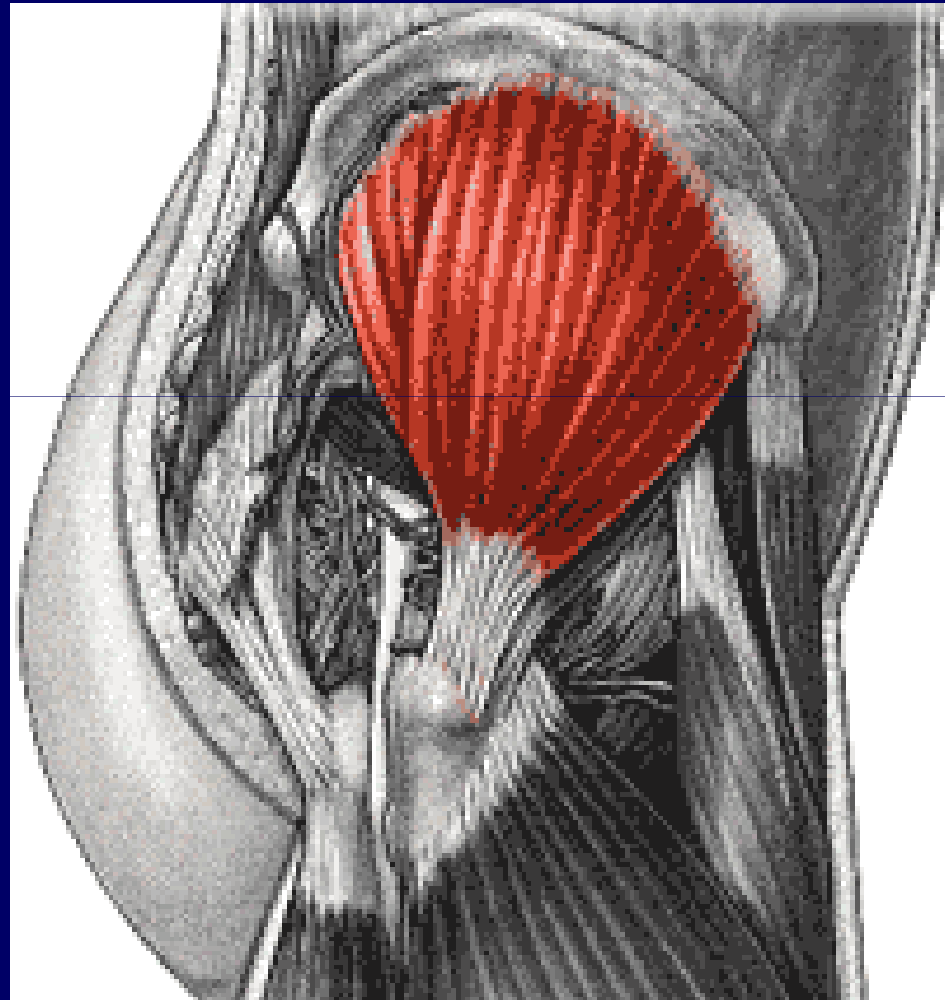
# HIP ABDUCTORS

## GLUTEUS MEDIUS

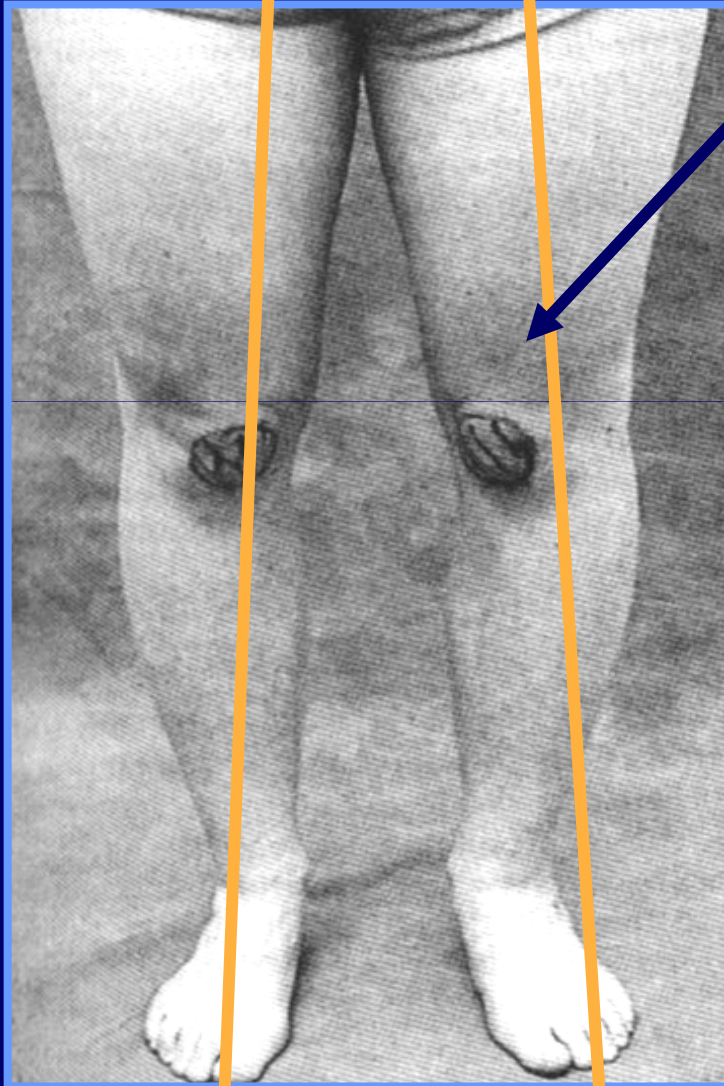
*TFL*

*GLUTEUS MINIMUS*

*GLUTEUS MAXIMUS*



# POOR LEG ALIGNMENT



Femoral Anteversion



# POOR LEG ALIGNMENT



# PRACTICAL - CLAMS

## EXERCISES FOR EXTERNAL HIP ROTATORS



# ESSENTIAL OBSERVATIONS

- Head position
- Ribcage position
- Pelvis Position - Neutral Spine
- Hip stacking
- Knee Position
- Foot Position



# ESSENTIAL DYNAMIC OBSERVATIONS

## *Hips Rolling Backwards*

Due to lumbar instability, poor range of motion in hip joint, weak external rotators, overactive quads and hip flexors

## *Rib Cage Flaring*

Due to weak core stability, over recruitment of lumbar spine erector spinae muscles

## *Compensatory Muscles*

Feeling fatigue in Glut Medius or Hip Flexors and not in the External Hip Rotators

# MODIFICATIONS

CHANGE	REASONS
Extend hips still keeping knees at 90°	<ul style="list-style-type: none"><li>-Requires adequate rectus femoris length</li><li>-Reduces activation of quads and psoas</li><li>-Reduces range of motion of hip</li></ul>
Lie flat back against the wall	<ul style="list-style-type: none"><li>-Help with reduces core activation</li><li>-Improve awareness of neutral spine position</li><li>-Helps to stop moving knee too far through range</li></ul>
Extend bottom leg	<ul style="list-style-type: none"><li>-Increases range of motion</li><li>-Increases recruitment of core muscles and obliques</li></ul>
Adding resistance bands	<ul style="list-style-type: none"><li>-Will definitely require more muscle fibre recruitment of the external hip rotators but will easily recruit other strong muscles to help out</li></ul>



# HOME TIME

