



Hip Health Management in Rowing

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Objectives

- **Why is the hip important?**
- **What are the obstacles?**
- **How can we optimise hip health and function?**
- **A bunch of pictures and videos at the end!**



Language

Familiarity with common terms used

Flexion

Extension

ADduction

ABduction

Internal Rotation (IR)

External Rotation (ER)

Anterior rotation (pelvis)

Posterior rotation (pelvis)



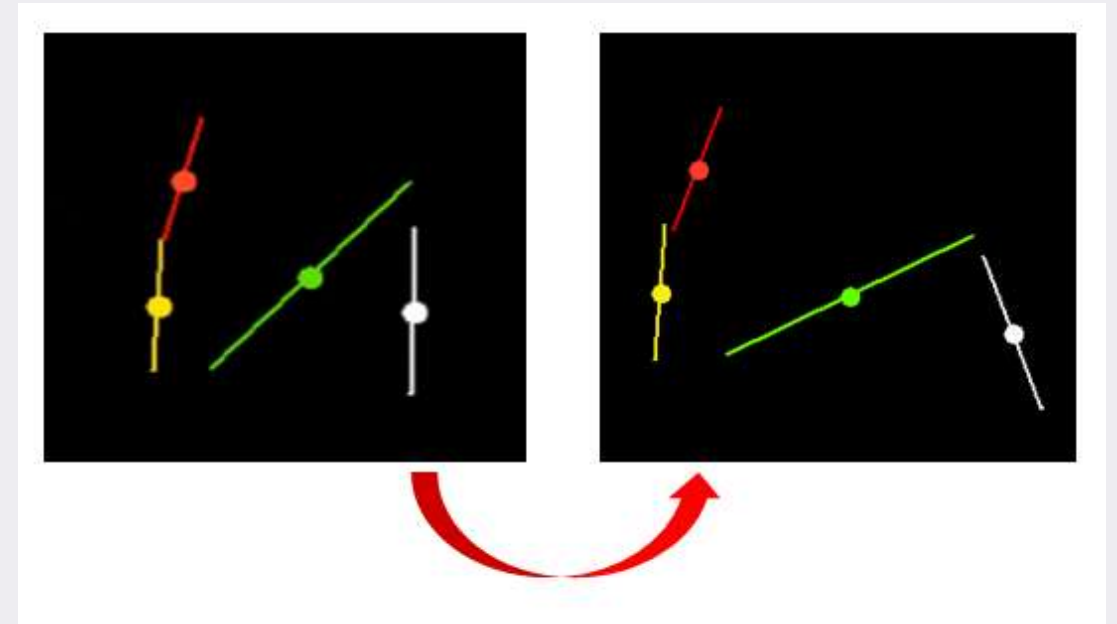
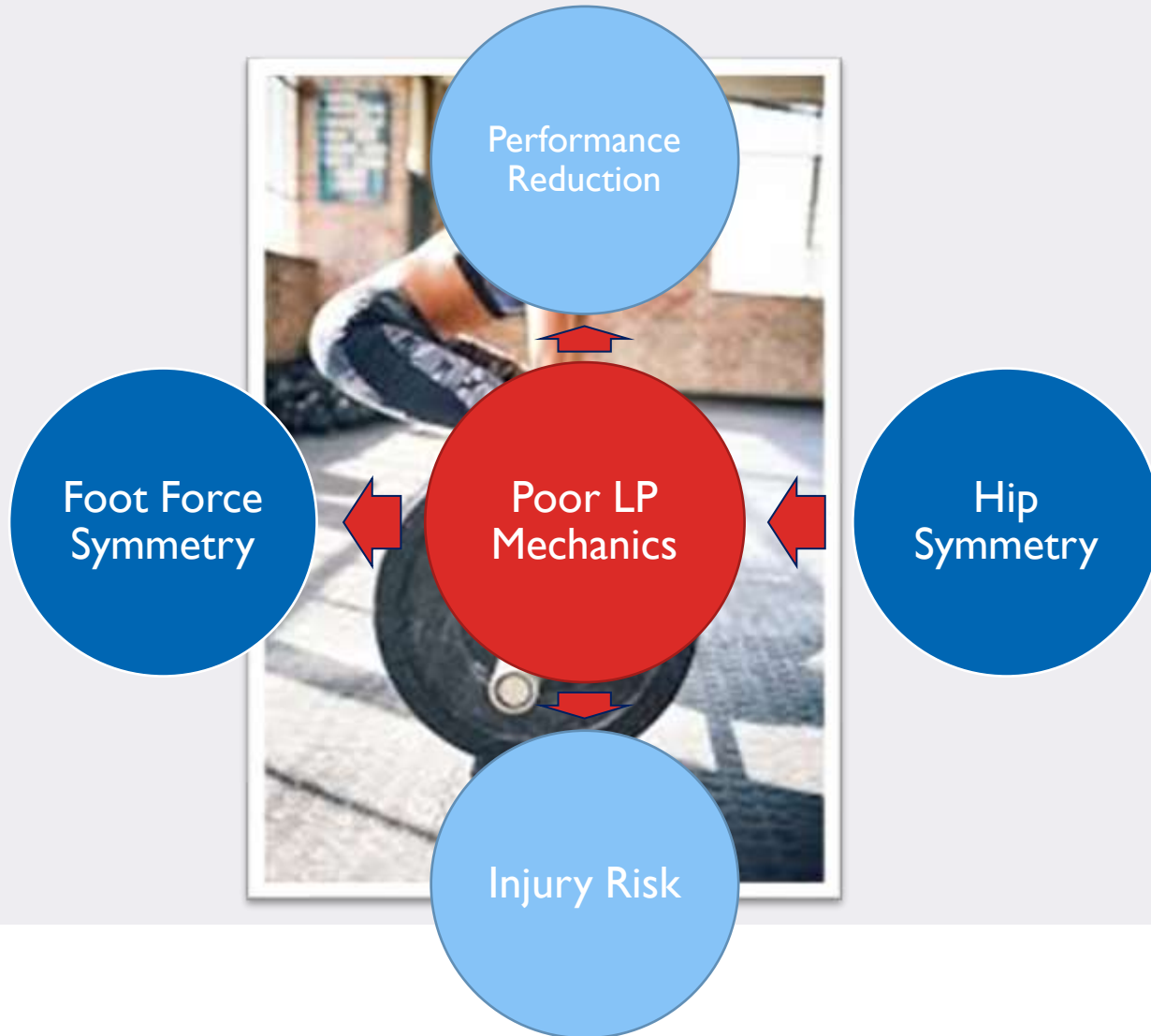


Why is the hip important?...

Subtitle

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Kinetics & Kinematics of the Rowing Stroke



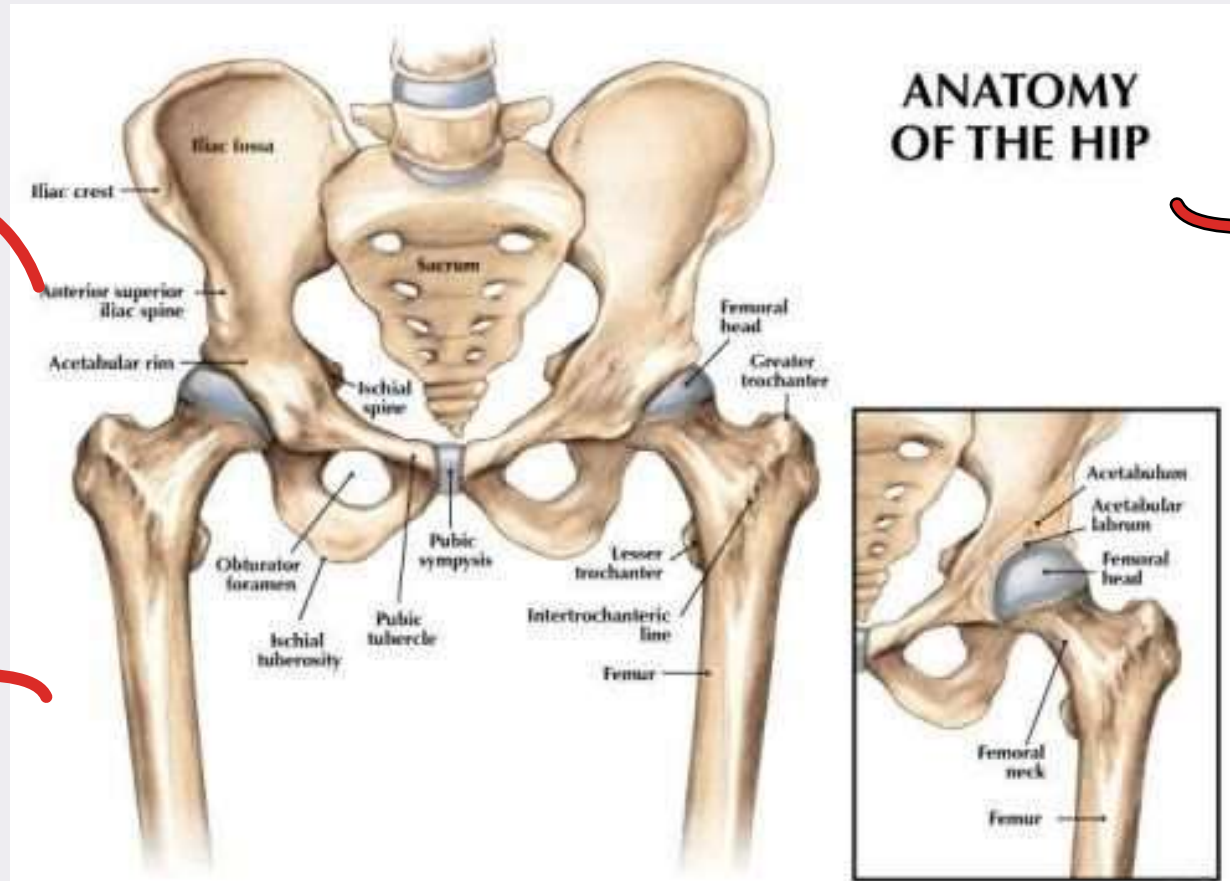
The role of the hip

Regional interdependence

Foot force



Stroke length



Predictor of LP flexion
Which is a contributing
factor for LBP.

What are the obstacles?...



The Warwick Agreement on femoroacetabular
impingement syndrome (FAI syndrome):
an international consensus statement

D R Griffin,^{1,2} E J Dickenson,^{1,2} J O'Donnell,^{3,4} R Agricola,⁵ T Awan,⁶ M Beck,⁷
J C Clohisy,⁸ H P Dijkstra,⁹ E Falvey,^{10,11} M Gimpel,¹² R S Hinman,¹³ P Hölmich,^{9,14}
A Kassarian,^{15,16} H D Martin,¹⁷ R Martin,^{18,19} R C Mather,²⁰ M J Philippon,²¹
M P Reiman,²⁰ A Takla,^{3,22,23,24} K Thorborg,¹⁴ S Walker,²⁵ A Weir,^{9,26} K L Bennell²³

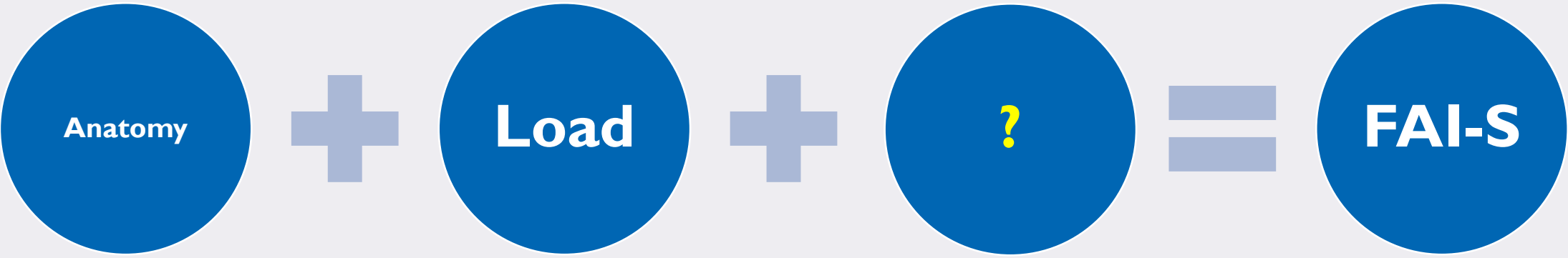
**FAI-Syndrome “motion related clinical disorder of the hip with a triad
of symptoms, clinical signs and imaging findings”**

Associated with reduced ROM, particularly flexion + Internal Rotation

The Anatomy



The Question...



Asymptomatic morphology



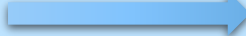
Abnormal Mechanics

+

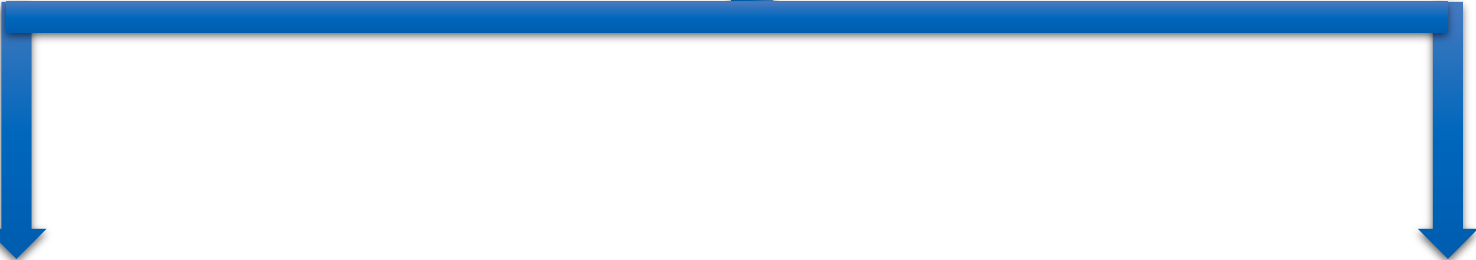
Repeated Loaded Deep Hip Flexion



LOCAL
Increased
compressive & shear
forces



**Movement
Dysfunction**



Symptomatic Hip



Lumbar Pathology







Athlete profiling

- **Mobility**
- **Motor control**
- **Capacity**
- **Strength (stiffness/power)**

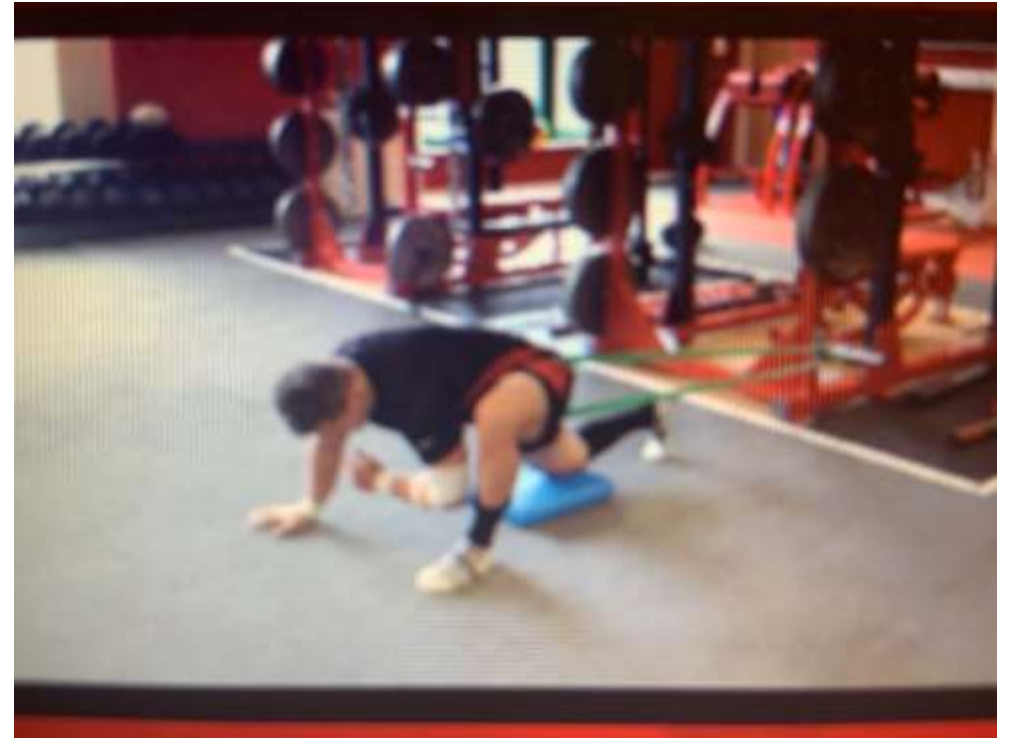
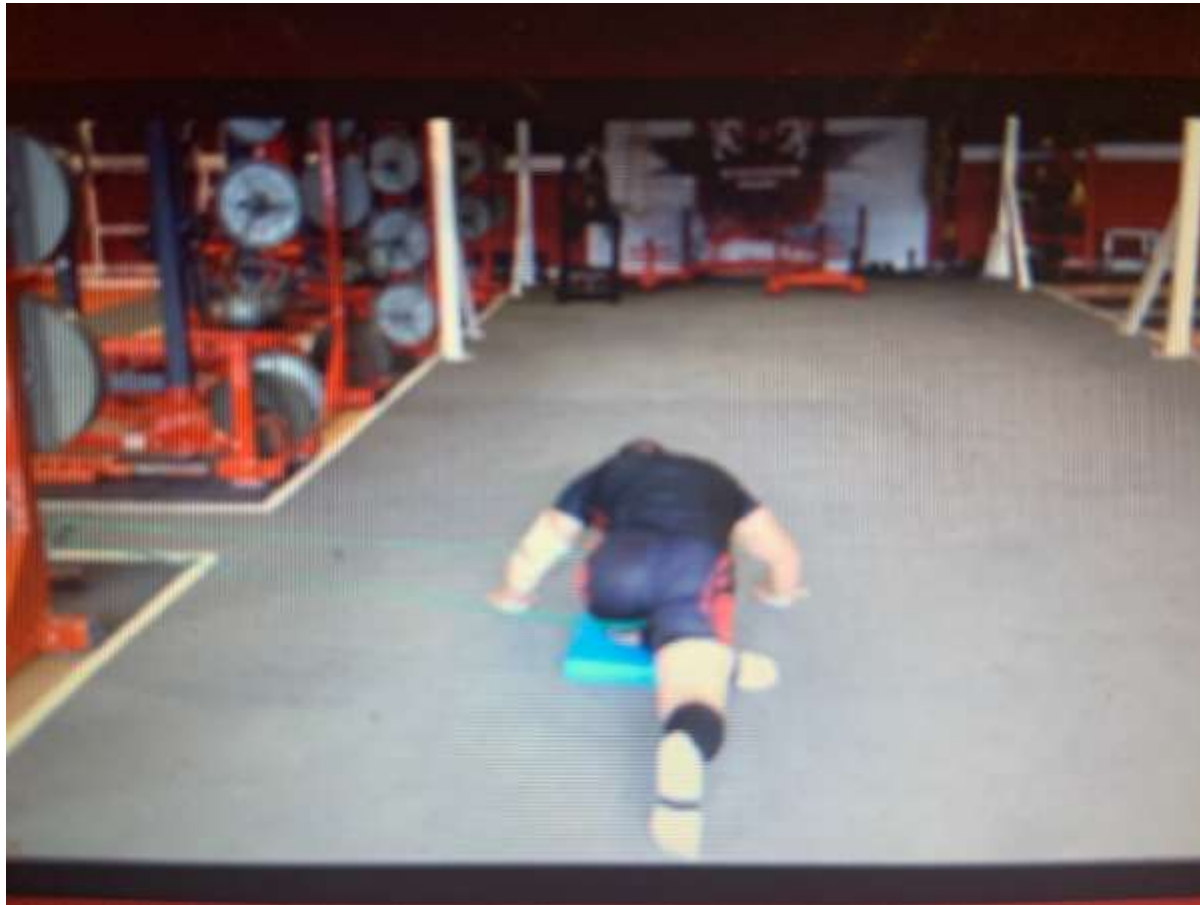
“Pop Fitness Culture”

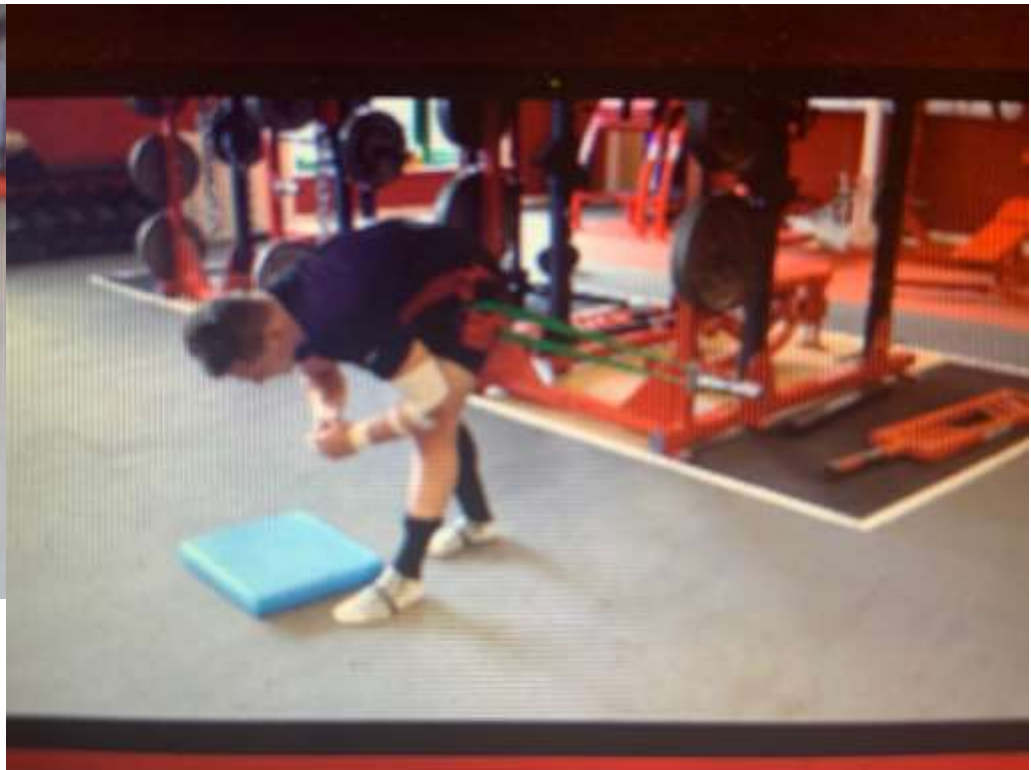
Things that make you feel good temporarily are addictive

Synthetic, temporary changes in range of motion aren't the solution.



Mobility - Give the people what they want!



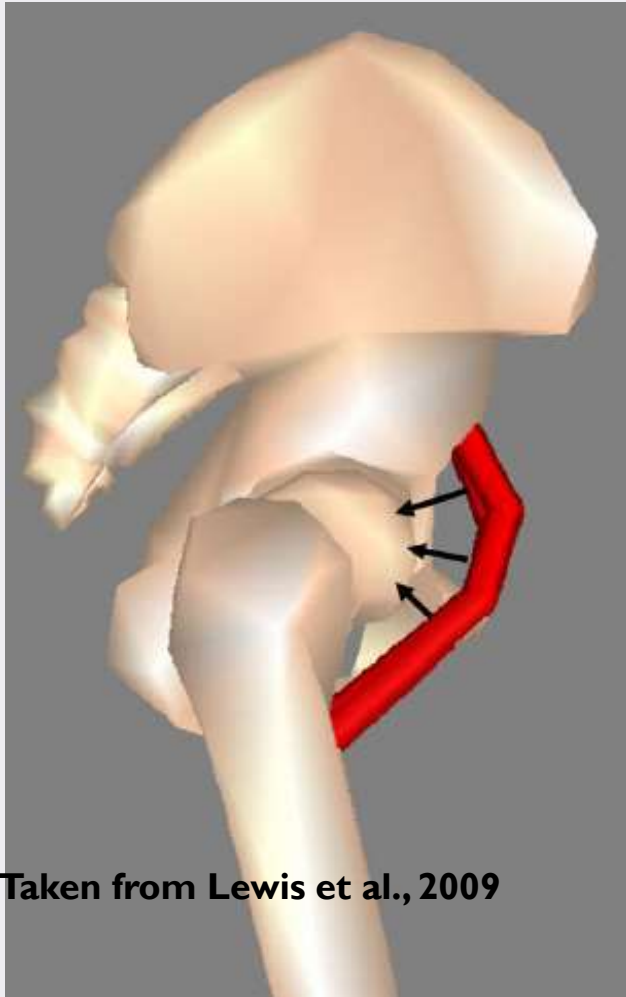


Now, What we really really want

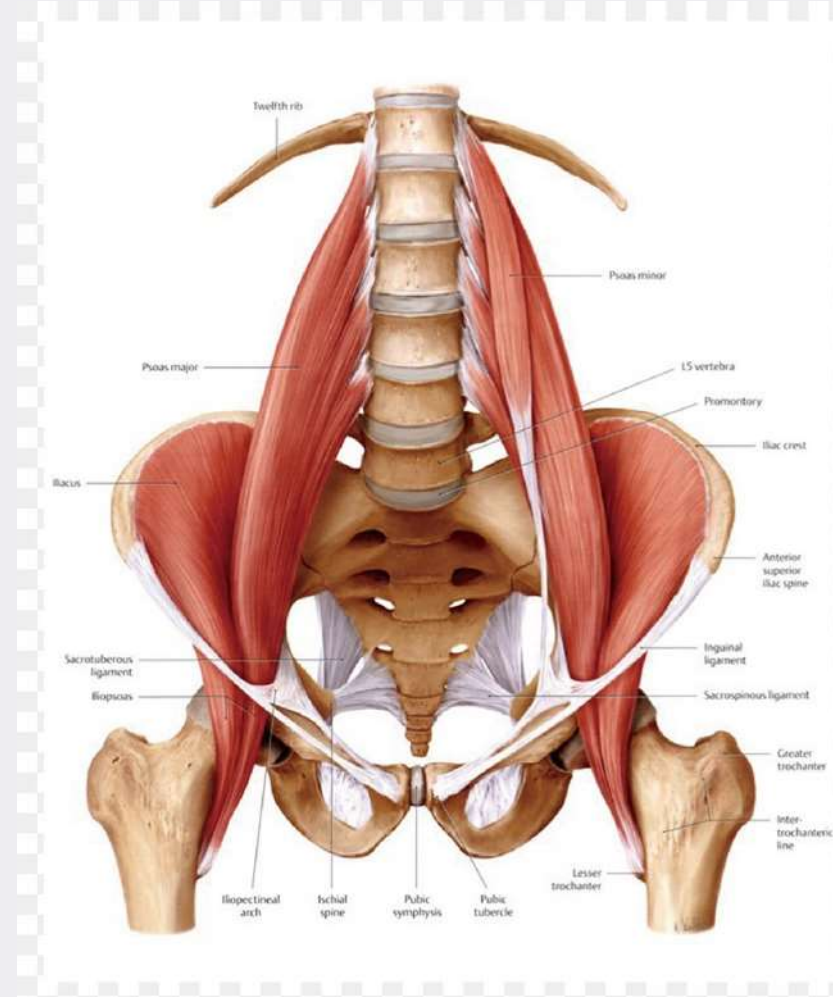
**What you
want**

**What we
want**

Hip Joint Stabilisation: Dynamic



Taken from Lewis et al., 2009



Options to think about...



Get more information: take pictures, video footage, get data (if you're a coach or physio) around hip, trunk and functional movements

Types of load and variety to elicit changes in tissue and movement – isometrics, tempo work

Tempo

Plane of motion

Isometrics

What are you trying to achieve!?

Gymnastics/play sessions

Testing



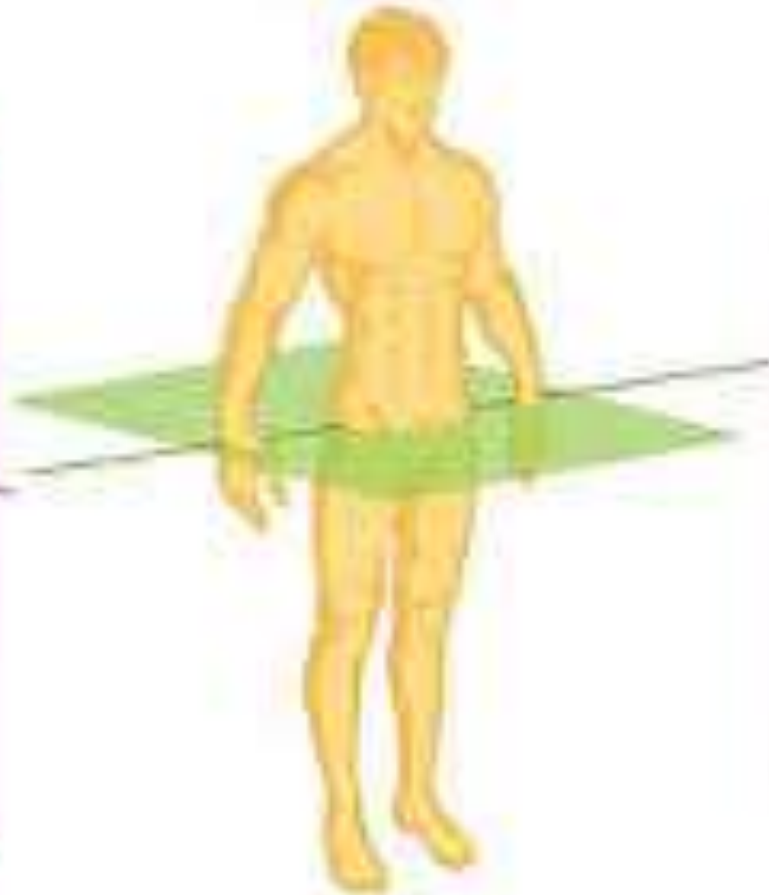


Planes of motion...

Sagittal plane



Horizontal plane



Frontal plane



Hip Hinge



Into practice...













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Isometrics...









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Any Questions?

Thanks for coming!

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