

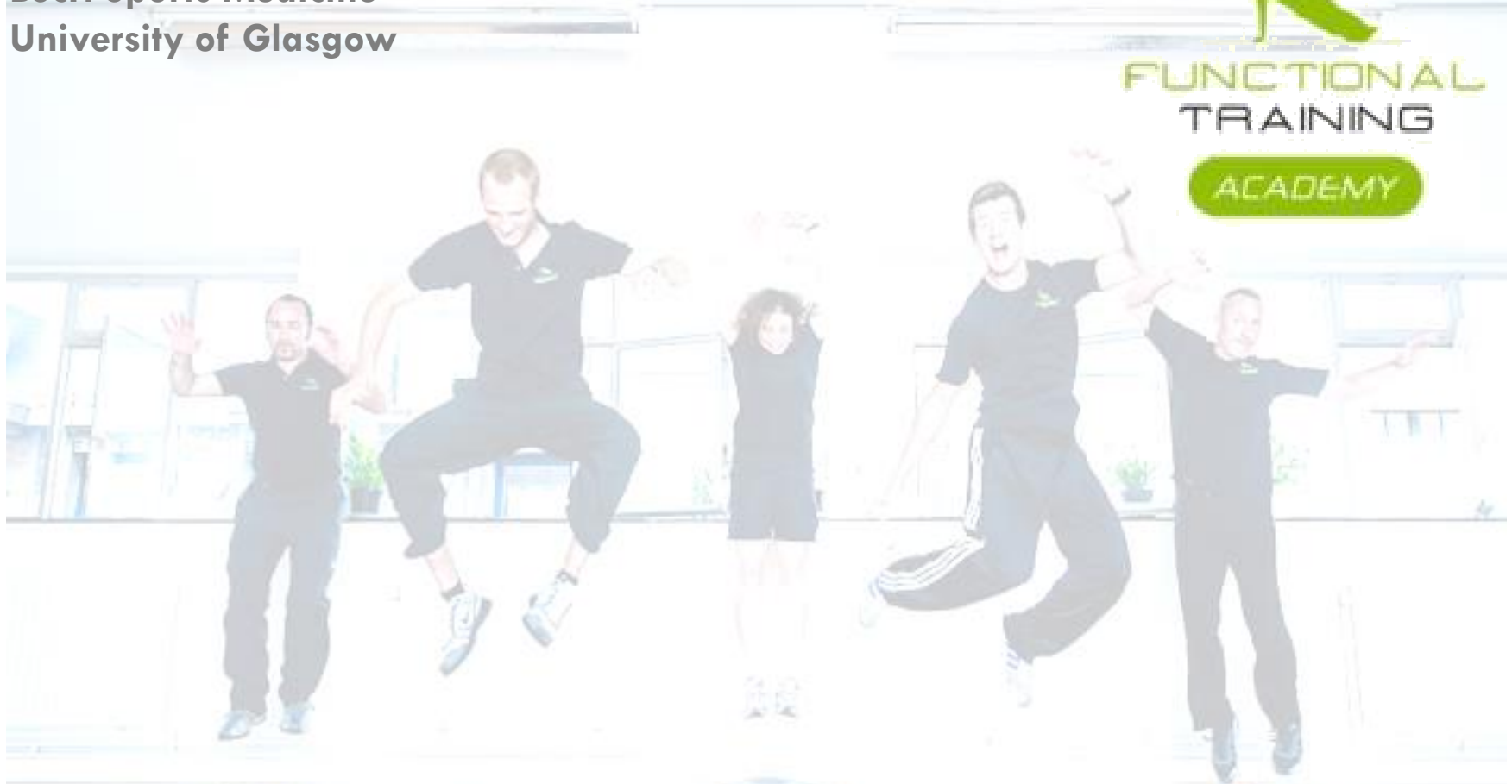
Max Icardi

**BScH Sports Medicine
University of Glasgow**



**FUNCTIONAL
TRAINING**

ACADEMY



**CORE TRAINING FOR TRIATHLON:
a functional approach**

WHY 'CORE TRAINING'?



The body roll of swimming is initiated at the core, so that the legs and shoulders rotate in unison...



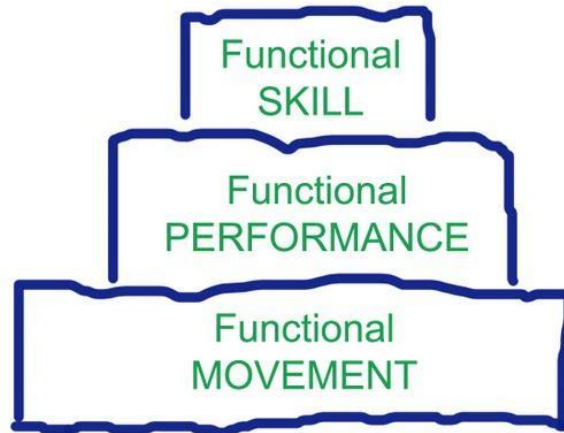
An engaged core will transfer the power of your upper body down to your pedals....



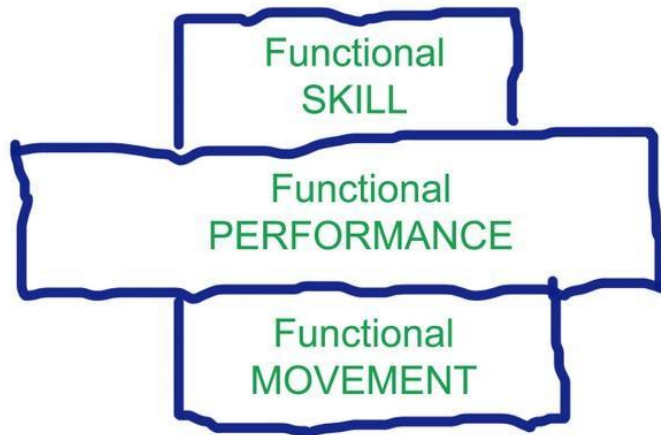
A strong core helps maintain run posture and facilitates turnover through the hip flexors...

Essentially, you swim, bike, and run
FROM YOUR CORE

THE FUNCTIONAL PYRAMID



OPTIMAL PERFORMANCE PYRAMID



OVERPOWERED PERFORMANCE PYRAMID



STABILITY VS. MOBILITY



● MOBILITY
● STABILITY

Training all joints in the body the same way is a recipe for pain and decreased performance. For our purposes here, the hips want to be mobile, the lumbar spine (low back) wants to be stable and the thoracic spine (upper back) wants to be mobile.

So, based on this understanding of functional anatomy we can see that we want to train the midsection to **resist movement, not create it.**

Since this is the case we want to avoid exercises that encourage movement and instead emphasize exercises that resist movement.

CORE ANATOMY



THE SPINE: the spine provides the supporting the trunk of the body. Attached to this frame is a complex system of nerves, muscles and ligaments that increase its strength and stability.



THE OUTER UNIT: Most of us are familiar with the 'six pack' muscles known as the rectus abdominus, obliques, laterals.... When we do straight sit ups, they are the muscles that we are strengthening. When we do sit ups to the side we strengthen the oblique muscles.



THE INNER UNIT: underlying all of this and not visible to the eye are some very deep muscles which are largely responsible for your balance, stability, posture, and core strength. The key component of this muscular system is a deep abdominal muscle called the transversus abdominus.

CORE ANATOMY - THE INNER UNIT

Diaphragm

Pelvic floor

Transversus abdominus

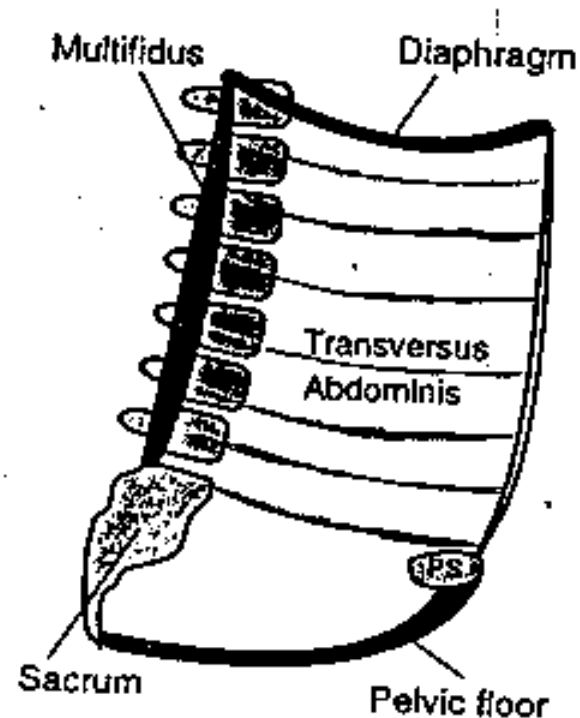
Multifidus (C3- L5)

+

(*Erector Spinae*)

(*Quadratus Lumborum*)

(*Thoracolumbar Fascia*)



- ✓ These muscles are weak and not designed for power.
- ✓ They are unique in that they are anticipatory, that is they fire before the onset of movement, and maintain a low-grade contraction throughout all movement activities.
- ✓ They form a stable internal mechanism for the spine and allow the outer unit to move the body around this stable structure.

CORE STABILITY TRAINING

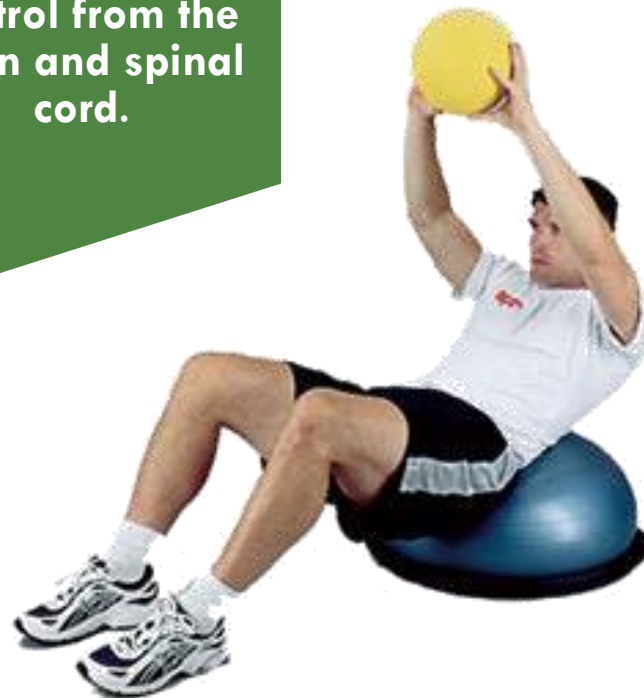
There are **three components** to stabilization at every location:

The first is the **passive structures** around a joint that control movement such as the ligaments and the shape of the bone surfaces.

The second component is the **muscles** that apply compressive forces to a joint.

The third component involves central **control from the brain and spinal cord.**

ISOMETRIC exercise has a great value for stabilization of joints, as long as it's applied to the right structures.



"THERE'S FIT AND THEN THERE'S TRIATHLON FIT"

The unstable environments of all three events of triathlon require strong core muscles to counter the terrain and stabilize the body. Core strength is ideally suited to tackle this job. Traditional fitness machines allow you to bypass core strength and train legs or arms strength directly, often giving you a false sense of true strength.



WANT TO KNOW MORE?



6 DECEMBER – INSPIRATIEDAG VOOR SPORTCOACHES

Waar? sporthal de Balsakker, 2275 Lille.

Wanneer? vrijdag 6 december van 9.30u tem 16.30u.

Met o.a.

- BLACK ROLL workshop (myofascial release)
- Lezing van Sabine Appelmans : ‘van gecoachte tot coach’
- Workshop rond kerntalenten door Serge Haubourdin
- Webinar van Lucy Johnson (UK) over e-marketing
- Masterclass ‘Functional Training for Sports’** door Max Icardi

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THANK YOU!

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