



Pilates for the Reflexologist

Introductions

Welcome to your Spine

Neutral, the Core and Back Pain

Pilates

The Squeezer Types

The Practical Exercises

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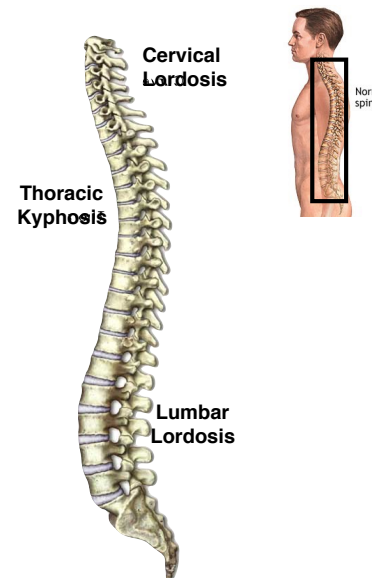
Neutral, the Core and Back Pain

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Neutral, the Core and Back Pain

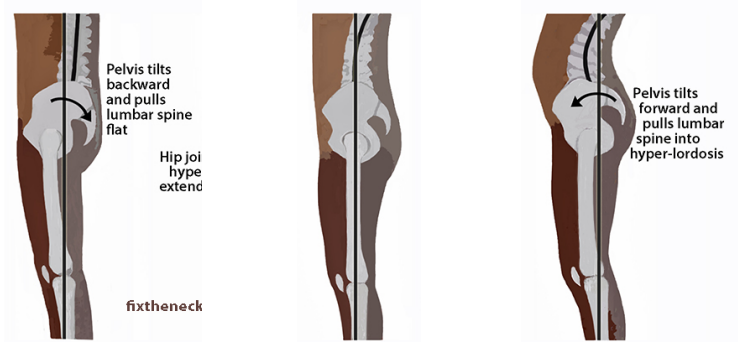


Minimises the load on tissues

Minimal muscle contraction to hold the position

...yet allows mobility of the spine

NEUTRAL SPINE



Flat Back

NEUTRAL SPINE

Hyper-lordotic

When the spine is out of neutral, excessive loads on skeletal and soft tissues and reduced range of motion



NEUTRAL SPINE

Superficial muscles **move** the pelvis/lumbar spine into/out of neutral

These can be too weak or too tense

..and we can lose the ability to know/feel what neutral is

PROPRIOCEPTION

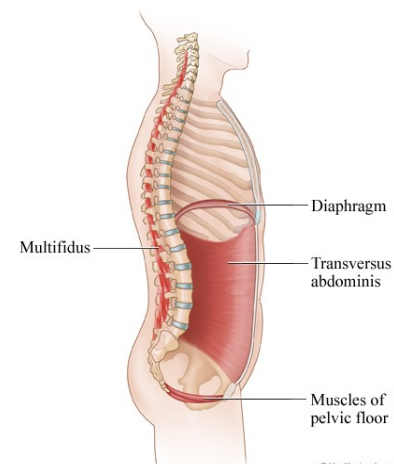


NEUTRAL SPINE

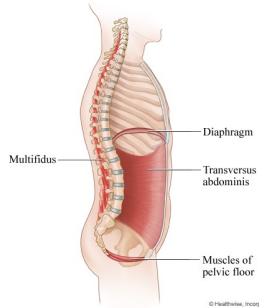
Deeper muscles help **keep** the pelvis and lower back in neutral spine

THE CORE

THE CORE



THE CORE



These can be too weak or (occasionally) too tense

..and we can lose the ability to recruit these muscles



During functional movements, load on the spine can take it out of neutral spine

...either because the muscles can't hold neutral spine or neurologically we don't tell the muscles to hold neutral spine

We need to engage superficial muscles to achieve neutral spine and then **"Engage the Core"** to keep neutral spine

Simple model of Back Pain

(What goes wrong?)

PROBLEM

Superficial back and hip muscles become too tense

Superficial muscles too weak

.....often a combination of the above two

Deeper Core muscles too weak

Deeper Core muscles not recruited when needed (but could be relatively strong)

CONSEQUENCE

Spine not achieving neutral position and/or loses mobility

Cannot get spine into neutral position. Core muscles can't (alone) maintain neutral

Recruit superficial muscles instead - they become too tense. Secondary postural problems

Neutral spine not held during activity

Simple model of Back Pain



An inability to achieve and maintain neutral spine during load bearing functional activity. Repeated over a long period of time or repeated with heavy loading, results in injury to adjoining soft tissues

Without appropriate correction, the tissues never have an opportunity to recover

Chronic Back Pain

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PILATES

A form of exercise that strengthens the superficial pelvis/back and Core muscles, increases proprioceptive awareness of neutral spine and, through repetition, develops functional recruitment

Pilates is therefore a form of exercise that develops the ability to achieve and maintain neutral spine during activity

...a means of managing **chronic back pain**

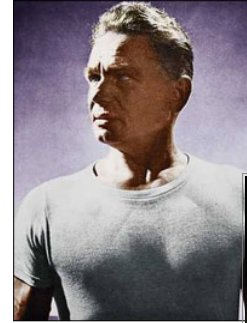
Pilates

The History



Pilates

The History



Pilates

An example exercise
The leg float



Pilates

The fundamentals

Achieve Neutral Spine

Engage the Core

Start moving the limbs in a way that challenges
Neutral Spine

Engage the Core appropriately to maintain Neutral
Spine

Increase the challenge on Neutral Spine and learn to
increase appropriately the Core engagement

Repeat/practise sufficiently so that the Core response
becomes subconscious

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The fundamentals

.....also stretching

.....and balance exercises

.....and co-ordination exercises

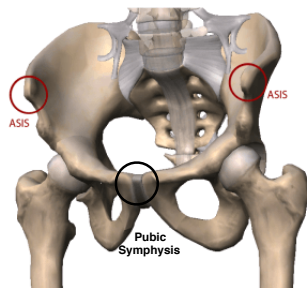
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To get started we need to:

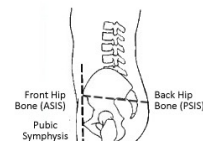
- find Neutral Spine
- find The Core and learn to engage it
- feel what it is like to lose neutral

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Finding Neutral Spine



In Neutral Spine, ASIS and Pubis will be in the same vertical plane (when standing) or horizontal plane (when lying)

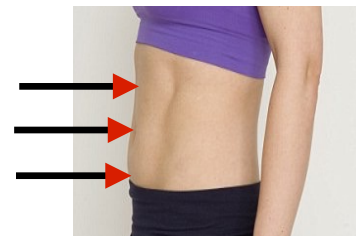


NEUTRAL

ASIS: anterior superior iliac spine
PSIS: posterior superior iliac spine

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Finding the Core and learning to engage it



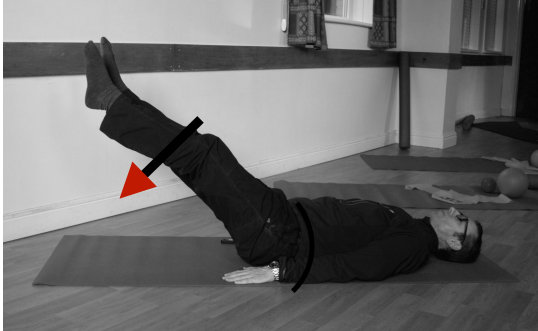
The five chains and the two drains



20%

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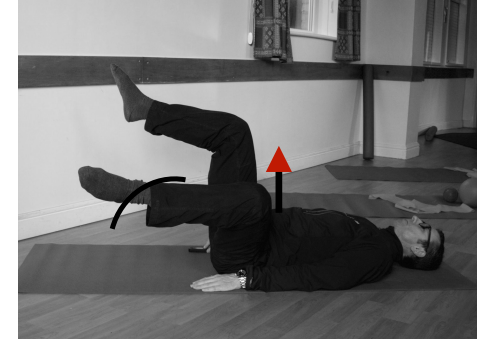
Feeling what it is like to lose neutral



Lower back comes away from the floor as the legs lower

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Feeling what it is like to lose neutral



Opposite side of pelvis lifts from the floor as the leg opens out to the side

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To get started we need to:

- find Neutral Spine
- find The Core and learn to engage it
- feel what it is like to lose neutral

Pilates exercises challenge neutral to develop strength and awareness of the Core Muscles

Pilates

The modern take on Pilates

Traditional Pilates

34 Matwork exercises

Modern Pilates

Based on *in vivo* understanding of the way the body moves

Pilates

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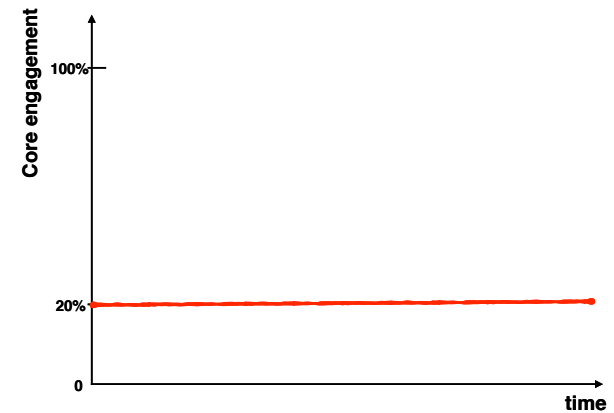
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The Squeezer Types

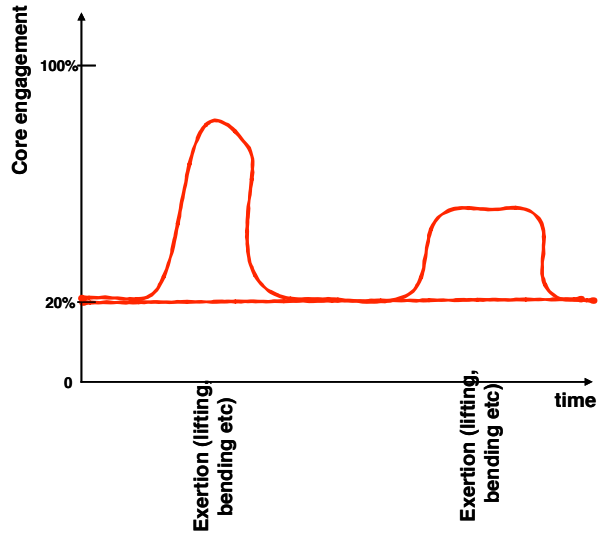
The Practical Exercises

The Squeezer Types

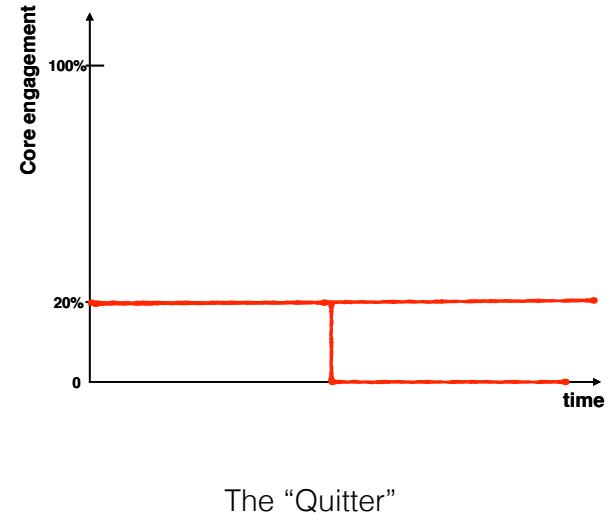
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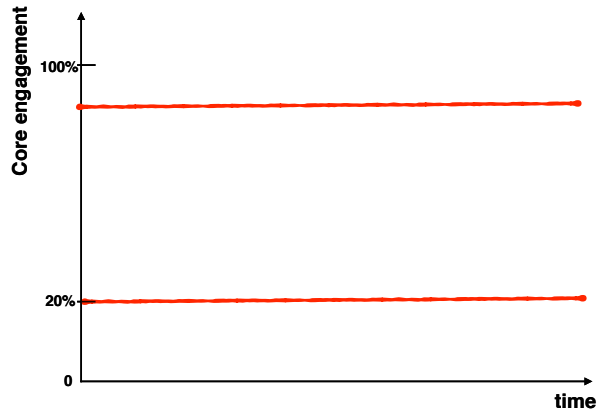
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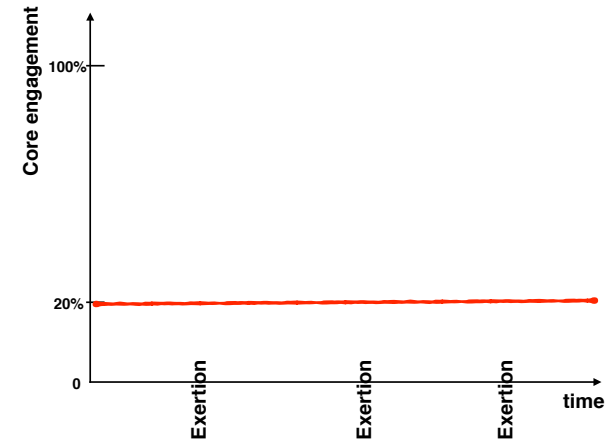


The Squeezer Types



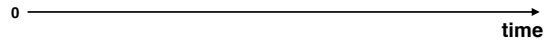
The "Clamper"

The Squeezer Types



The "No Matter Whats"

The Squeezer Types



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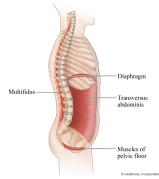
The “making the tea” exercise

The Pelvic Tilt

The seated back stretches

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The “making the tea” exercise

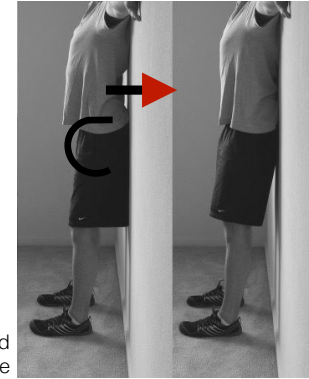


Engage the Core....



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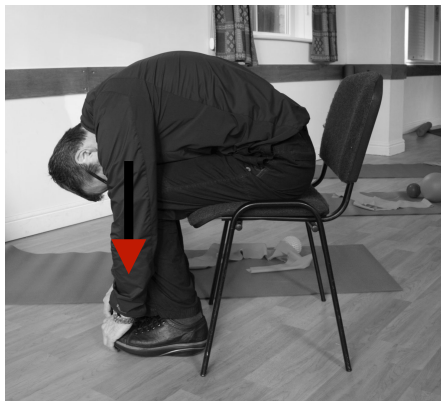
The Pelvic Tilt



Left hand image exaggerated
- start in more natural curve

The Practical Exercises

The seated back stretches



Be careful how you
come out of this stretch



The Practical Exercises

The seated back stretches



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The seated back stretches



The Practical Exercises

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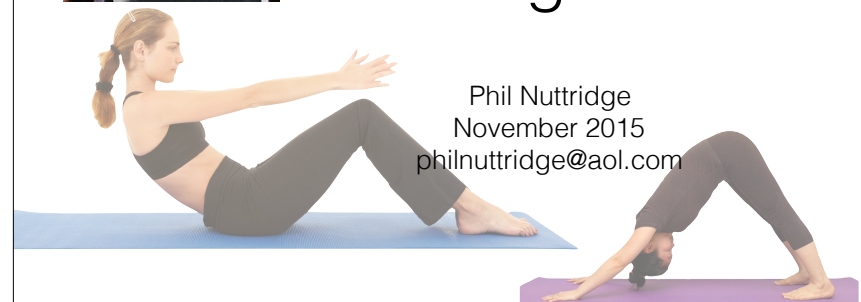
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Phil Nuttridge
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philnuttridge@aol.com