
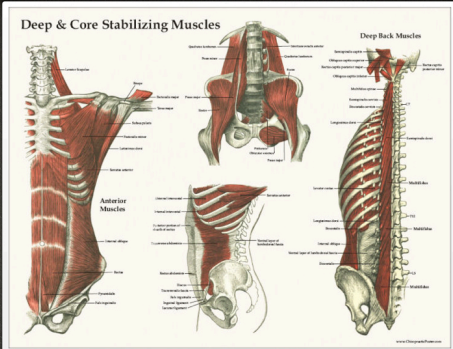


**“BULLETPROOF” YOUR PELVIC FLOOR AND CORE - PART 2**



ANTONY LO – THE PHYSIO DETECTIVE – PHYSIODETECTIVE.COM

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**“CORE” MUSCLES**

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**STABILITY**

**Stability Definition:**  
 The ability to maintain the desired trajectory despite kinetic, kinematic or control disturbances (Hodges P.W, Cholewicki J.J 2007)

Stability of a dynamic system requires consideration of the level of load, the mobility requirements, predictability of the task and real or perceived risk (Lee DG 2011)

**In Rehab and Sport:**  
 The ability to complete the prescribed movements without excessive shearing or unwanted motion in all joints

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**PELVIC FLOOR MUSCLES (PFM)**

It is NOT just weakness - in fact, many athletes are OVERACTIVE (but also stretchy!)

Timing and Breath are everything

Strength helps but is not everything

Genetics also plays a major role

The pelvic floor is just one part of your body

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**CORE STABILITY MUSCLES**

**How to find and use them!**

- What “Test-Retest” are you using?
- How to do a pelvic floor contraction
- How to do a transversus abdominis contraction
- How to do a multifidus contraction
- How to breathe properly
- How to put it all together

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**IAP IN EXERCISE AND SPORT**



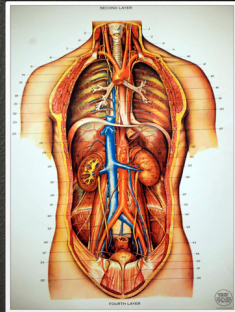
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## INTERNAL PRESSURE SYSTEMS

There are 2 main pressures we are concerned about:

Intra thoracic pressure

Intra abdominal pressure (IAP)  
– correlated to intra-pelvic pressure (IPP)



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## THE IAP PROBLEM Body position

COMPLETELY INDIVIDUAL!!

Most pressure in upright (standing and sitting), especially bent over with poor posture

Least pressure lying flat away from gravity

Upside down not tested but assumed to be ok (except downward dog)

Worst is squashing tummy (belts anyone?!) - bending over to lift especially

What does this mean for your exercise?

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## THE IAP PROBLEM

### Breathing

Holding your breath increases the pressure (Valsalva) - what does this mean for your lifting?

Breathing out on exertion helps mitigate the pressure (Yoga and Pilates anyone?!)

But what about for heavy lifts?

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## THE IAP PROBLEM

### In Exercise

Remember individuality!

Supine exercises are best

Sitting and standing arm and leg exercises next best

Jogging is better than machine loaded crunches

Loaded exercises lifting off the ground is the highest risk for exercise but not as bad as coughing and sneezing...but what about duration and fatigue?

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## THE IAP PROBLEM

### Load

Small changes in weight (from 5kg to 15kg) can significantly increase intra abdominal pressure

Unfortunately they don't study people who lift a lot, only "normals" who lift 15kg...CF warm up weight!

Standing up from a chair with hands on thighs is MORE pressure than light weights above head, crunches, climbing stairs and walking on a treadmill!

Because of the lack of research, everyone needs an individual, internal assessment of their pelvic floor function

(Weir, Nygaard et al. 2006, O'Dell, Morse et al. 2007, Shaw, Hamad et al. 2014)

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## GENERAL EXERCISE FOR HEALTH

Exercise is recommended by the WHO/CDC/DoH for optimum health:

At least an average of 30mins moderate exercise 5 days per week

AND

Muscle strengthening exercise at least twice per week

(AKA CrossFit!!!)

But all these women have limitations to exercise because of their symptoms!

What do we do?

[http://www.who.int/dietphysicalactivity/factsheet\\_adults/en/](http://www.who.int/dietphysicalactivity/factsheet_adults/en/)  
<http://www.cdc.gov/physicalactivity/basics/adults/index.htm>  
<http://www.health.gov.au/health-research-and-services/physical-activity-guidelines/30-150>  
Andria Hunt, Yoga, PDD

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## BUT WHAT DO YOU DO WHEN YOU HAVE A PFD?

### Control the pressure!

- Choose the right exercise and scaling
- Posture - watch that "cylinder"! (prac coming up)
- Breathing
- Control
- Load – Spread it around! Tension to task!

### Be aware that no symptoms doesn't mean "no problem"

### Timing and technique are your friend!

- Mechanics, Consistency, Intensity (sound familiar?)

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## PF PRACTICAL

- Posture – test/retest
- Isolation
  - Endurance
  - Strength
- Movement
  - Don't squash the tummy
  - Coordinate your breathing
  - #TensionToTask
  - #SpreadTheLoad
  - Use the "Bulletproof Routine"

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## PF PRACTICAL The "Bulletproof Routine"

- Breathe in (chest and abdomen even) and relax pelvic floor
- Breathe out and gentle pelvic floor/core contraction
  - Back passage, front passages, draw in gently, bring the hip pointers together, feel the swell
- Breathe in maintaining the gentle contraction
- Breathe out a little (25-50%) and hold the breath
- #SpreadTheLoad
- Match the #TensionToTask
- Lift!

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## PF PRACTICAL

- Double unders
- Box jumps
- Running
- Lifting
- Abdominals
- Better choices

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## CONCLUSION

- Symptoms are not normal - seek help from a qualified Pelvic Floor Physical Therapist
- Make informed decisions - everything in life is a risk
- You DO NOT have to stop exercising, you just have to be considerate of your pelvic floor
- Find someone who will support you in your chosen sport...nothing worse than seeing someone who hates your sport!
- When in doubt, ask...if there is no one to ask, ask us!

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## RESOURCES

- **The Continence Foundation of Australia**
  - [www.continence.org.au](http://www.continence.org.au)
- **The Australian Physiotherapy Association**
  - [www.physiotherapy.asn.au](http://www.physiotherapy.asn.au)
- **International Pelvic Pain Society**
  - [www.pelvicpain.org](http://www.pelvicpain.org)
- **Women's Health Training Associates**
  - [www.womenshealthtrainingassociates.com](http://www.womenshealthtrainingassociates.com)
- **#pelvicmafia**
  - Twitter hashtag to find interested pelvic health professionals
- **The Pelvic Health Podcast**
  - [www.physiodetective.com/pelvic-health-podcast](http://www.physiodetective.com/pelvic-health-podcast)
- **Pelvic Floor Exercise – Equipment and Supplies**
  - [www.pelvicfloorexercise.com.au](http://www.pelvicfloorexercise.com.au)

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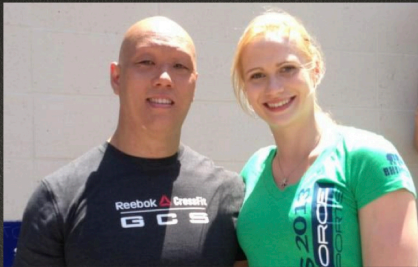
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THANK YOU!

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