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### Learning outcomes

- Strength testing of the core muscles
- Activation of weak muscles via Chapman's Reflex Points
- Assessing for stretch weakness and appropriate muscles to stretch
- Applying self stretching and partner stretching to balance the hips and pelvis and neck.

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### What are the core muscles?

- Make sure that your house is strong
  - A stable base, strong roof and functional walls.
- Psoas and Gluteus Maximus
  - Balanced reciprocally
- Diaphragm
  - Fully compliant
- Anterior posterior and lateral slings

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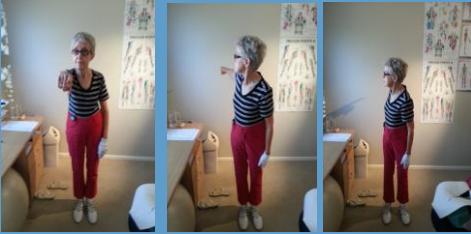
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## Stress turns your muscles OFF

- But most of it's in your MIND



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## Testing or tricking the hormones?



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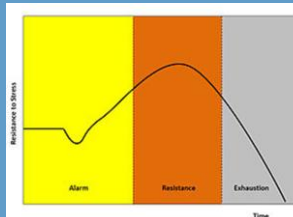
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## Stress cycle

- Adrenaline, nor adrenaline cortisol
- Adaption limited
- ANS symptoms reappear
- Immune system compromised
- We need the PNS



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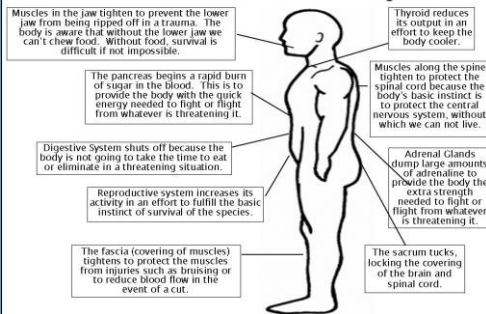
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## Threat effects on the body

### WHAT HAPPENS WHEN THE BODY PERCEIVES A THREAT OF INJURY



## Stress and the outcomes

- If stage three is extended
  - long-term damage may result as the body's immune system becomes exhausted, and bodily functions become impaired, resulting in symptoms and conditions including
    - ulcers,
    - depression,
    - anxiety,
    - diabetes,
    - digestion disorders,
    - even cardiovascular problems.

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## Long term costs

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>■ Physically               <ul style="list-style-type: none"> <li>■ Rapid aging</li> <li>■ Weight gain</li> <li>■ High blood pressure</li> <li>■ Heart disease</li> <li>■ Cancer</li> <li>■ Digestive problems'</li> <li>■ Nervous breakdown, burnout</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>■ Emotionally               <ul style="list-style-type: none"> <li>■ Anxiety, depression, fear</li> <li>■ Irritability, anger</li> <li>■ Insecurity</li> <li>■ Loss of libido</li> <li>■ Impaired memory and concentration</li> <li>■ Excessive smoking/drinking</li> </ul> </li> </ul> |
|---|--|

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## CNS and Defensive posture

- Poor muscle proprioception
  - Imbalance of alignment and movement of muscle contractions
- Poor breathing without an efficient diaphragm
  - using the accessory respiratory muscles including Scalenes and Pec minor.
- Ceases the PNS via the control of the Hypothalamus.
  - Alters the endocrine system , limbic system and musculoskeletal system

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## Strength = Length

- Muscles with poor neural input will loose their pathological resting length
- The most efficient way to improve length is not by stretching!!
- Muscle strength test first and foremost
- Length test for comparison
- Stimulate the neural component
- Re-test the strength and length.

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## Help yourself before others



Are your clients healthier than you??

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## Activate your CORE with Chapman's Reflexes

- Impossible to test strength objectively
- Subjective assessment of strength and length
- It's "the vibe"
- If possible find a testing partner.
  - Diaphragm
  - Gluteus maximus
  - Psoas/Iliacus
  - Hamstrings
  - Abdominals (Rectus abdominus, obliques, TA)

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## Break the stress cycle

- Fastest way to return to PNS is with the 'Relaxation response'
  - Founded by Dr Herbert Benson – 1970s
  - Yogis controlled autonomic functions of breathing, heart rate, blood pressure, core temperature ...
  - Diaphragmatic breathing will interrupt the stress response

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## What are Chapman's Reflexes

- Dr Frank Chapman – Osteopath – 1930's
- Palpated tender points – increase or congestion in Lymph
- Improve health of organs, areas and glands
- Dr George Goodheart – founder of AK
- Linked Chapman's Reflexes with muscles
- Every muscle has its own Neuro-lymphatic point

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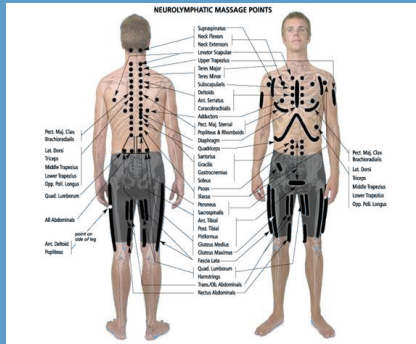
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## Where are the points located?



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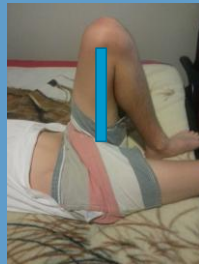
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## Activation points for the abdominal groups

- Rectus is along the distal posterior medial adductor line.
- Obliques and Transverse Abdominus along the proximal posterior medial adductor line.



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## Strength first, length second!

- Wake up your neurolymphatic points
  - 30 seconds vigorous NOT hard rubbing daily
  - Accumulated effect over time
- Order is diaphragm #1<sup>st</sup> as this mediates the PNS
  - 2 minutes or 10 deep diaphragmatic breaths
  - Psoas, Gluts and whatever needs doing...

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## Now let's STRETCH

- Stretching is
  - Any therapeutic manoeuvre designed to increase mobility of soft tissue and subsequently improve ROM
  - Elongating structures that have adaptively shortened and have become hypomobile over time

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## Where do we feel it most?

- Upper back, neck, shoulders
- Lower back, gluts, hips



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## Who has neck problems??

- Cervical pain & ROM
  - Test Cx ROM now
  - Get down and do as deep a glut stretch as you can
  - Re-test the Cx ROM
  - Results and comments



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## Tips for lower back stiffness

- Most commonly not from the source of origin
  - Pain is often a result of overuse rather than underuse
  - Don't beat the dog who is trying to protect the property!
  - He might be warning you...



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## Common imbalances

- Imbalance between Gluteal and deep hip rotators AND hamstrings
  - Tight deep hip rotators and Gluteals often create short hamstrings
  - Therapists stand in hip extension for long periods of time
  - Creating reduced ROM to GOGO's, obturator, quad fem
  - Shortens the hamstrings protectively

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## Break the Glut V Hammy cycle



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## Forward flexion and adductors

- Tightness of the latissimus dorsi, lumbosacral fascia inhibit the pelvis from nutation and counter-nutation
- This inturn tightens the adductors in counterbalance
- The clinical picture is
  - tightness felt in the medial hamstrings in forward flexion
  - Short tight long adductors

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## Contraindications to Stretching

- Joint motion decreased by a bony block
- Recent fracture
- Acute inflammatory or infectious process
- Hematoma or other tissue trauma
- Shortened soft tissues
  - That increase joint stability
  - That increase functional abilities
- Hypermobility –flippy's floppy's or stiffy's??

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## Thoracic rotations

- Lock yourself into a fixed position at end of range
- Apply a self stretch OR
- Recruit reciprocal inhibition with a muscle energy technique.



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## Neck ROM last but not least



Upper and mid trapezius  
Levator scapulae  
Lateral neck flexors

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## Balance for your alignment

- Proprioceptors
  - Eyes, ears and ankles
- Gluteal stabilizers in the lateral and posterior planes
  - Glut med/min, adductors, lateral trunk flexors
  - Lat dorsi, piriformis
- Core stabilizers
  - Glut max, hip flexors, multifidii

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## Daily tools to keep you on task

- Wake up your Neurolymphatic points
  - Shuzz at least 3 mornings/days each week
- Stretch your pelvis, trunk and neck
  - At the end of the day or when your body is warm and feels stiff
- Single leg stances
  - Whenever you have time, between clients, daily or as often as you like.

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## Presenter details



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