

# The challenge of moving and breathing in pain! Stimulated?

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# How to physically manage

1. Threat/Stress response



2. Fear/Pain avoidance



3. TENS stimulation



# A quick review

- New things learned
- Our shared understanding of things pain:
  - Why?
  - When?
  - Where?

# Definition (Moseley)

- **‘Pain is an unpleasant conscious experience that emerges from the brain when the sum of all the available information suggests that you need to protect a particular part of your body’**



# Pain responses

- STOP
- Withdraw
- Attend
- Analyse
- Plan to avoid repeat



# Pain responses

*Triggered by pain threat response will prompt person in pain to:*

- STOP (Moving AND breathing)
- Withdraw

*Triggered by fear of harm, the person AND others 'attending' will use their past experiences, personal and learned knowledge, and desire to minimise suffering to:*

- Attend
- Analyse
- Plan to avoid repeat



**I CAN'T BELIEVE YOU  
DID THAT**

**DON'T YOU DARE DO  
IT AGAIN**



# Acute versus Chronic

## ACUTE

STOP ✓

Withdraw ✓

Attend ✓

Analyse ✓

Plan to avoid repeat ✓

## CHRONIC

STOP ? ✓ ↓

Withdraw ? ✓ ↓

Attend ? ✓ ↓

Analyse ? ✓ ↓

Plan to avoid repeat ? ✓ ↓

**SUPPORTS  
REHABILITATION**

**• INHIBITS  
REHABILITATION**



# Acute versus Chronic



**Follow your intuition**

- **Ignore your body's 'advice'**

i don't do that  
**KEEP CALM & CARRY ON**  
thing



i prefer the  
**SWEAR & BREAK STUFF**  
thing...



# How about Breathing?

- Breathing changes when we are in pain and other threatening situations
- Breathing in pain occurs in the upper chest, and is inhale focussed
- While breathing in this pattern, pain and stress levels remain elevated

# Practice session



# Try again



# Physical responses to pain

- Although we mostly talk about the “Fight and Flight” response, the most common response to pain is to **FREEZE**



# Managing the fear of pain / movement

- Motion is lotion
- Regular is key
- How rather than what
- Avoid boom-busting
- Cardio-vascular fitness is critical
- Valued activities and
- Enjoyed movement are key
- NEVER SAY YOU SHOULDN'T HAVE

# Managing the fear of pain / movement

- Assure
- Assure, (breathe)
- Praise
- Coax, focus on long-term
- Assure
- Ask
- Praise

***Coaching  
works...***

***even when  
you think  
it won't.***



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# Role of TENS

- TENS can provide a fairly instant response / relief
- It can be used activity specific
- Provides additional strategy
- Empowers self-management
- Increases confidence to cope

# Theory Evaluated (by) Noted Scientists

- Developed by Melzack and Wall 1965
- Based on similar concept to “rubbing a painful area having an analgesic effect”
- Developed to ‘prove’ the inhibiting effect of afferent fiber activity and pain (gate)
- Mechanism understood to be most like distraction

# Terrifying **E**lectric **N**oxious **S**tung

We have 6 components to consider

**1. electrodes**

how many

where

**2. Intensity**



# Telephone Emergency Notification System

## 3. **Pulse rate / frequency**

changes sensation of stimulation from tapping to tingling to buzzing

## 4. **Pulse width –**

change in sensation more subtle

affects intensity and can affect depth of stimulation

# Tropical El Nino Storms

## 5. N/M/B

Normal or constant stimulation

Modulated or wavelike stimulation

Burst or pulsating stimulation

## 6. Timer

Constant or

Switch off at 15 / 30 minutes

- **Association of Chronic Widespread Pain With Objectively Measured Physical Activity in Adults: Findings From the National Health and Nutrition Examination Survey** Original Research Article
- [Elizabeth J. Dansie\\*](#), [Dennis C. Turk\\*](#), [Kathryn R. Martin<sup>†</sup>](#), [Dane R. Van Domelen<sup>‡</sup>](#), [Kushang V. Patel\\*](#),

# **Is adherence to pain self-management strategies associated with improved pain, depression and disability in those with disabling chronic pain?**

- [Eur J Pain](#). 2012 Jan;16(1):93-104. doi: 10.1016/j.ejpain.2011.06.005.
- [Nicholas MK](#), [Asghari A](#), [Corbett M](#), [Smeets RJ](#), [Wood BM](#), [Overton S](#), [Perry C](#), [Tonkin LE](#), [Beeston L](#).
- there was a clear gradient between adherence to specific self-management strategies and reductions in pain, disability and depressive symptoms.

# Chronic pain and frequent use of health care.

- Pain. 2004 Sep;111(1-2):51-8.
- [Blyth FM](#), [March LM](#), [Brnabic AJ](#), [Cousins MJ](#).
- University of Sydney, Royal North Shore Hospital, Australia.
- Higher levels of pain-related disability predicted health care use more than other pain status variables. There was a strong association between pain-related disability and greater use of services.