

Movement Related Pain


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INTRODUCTION

When Moving Hurts



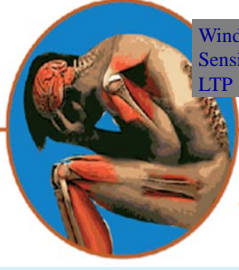
Assess
Understand
Take Action

Pro- Inflammatory factors
 Cytokines/Chemokines
 MMPs
 Neurogenic inflammation

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INTRODUCTION

When Moving Hurts



Wind –up like phenomenon
 Sensitisation
 LTP


Assess
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INTRODUCTION

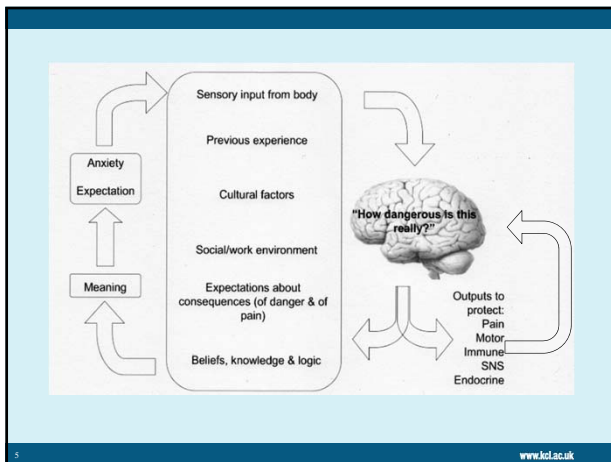
Stress
 Kinesiophobia
 Nueronal-Glia interactions

When Moving Hurts



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Understand
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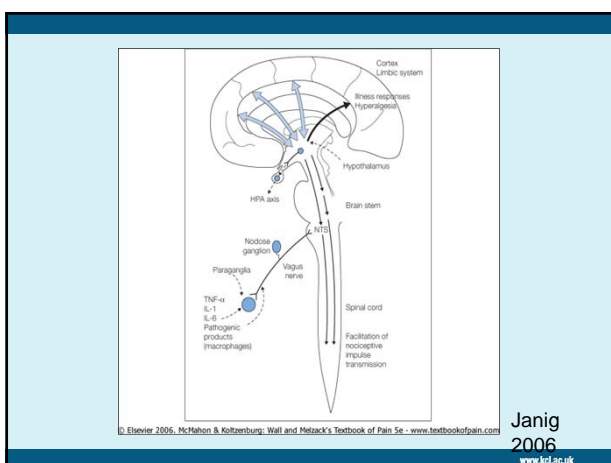


Movement and pain not just a musculoskeletal problem

Stress	Alzheimer's Disease
OCD	Dementia
Tourette's Syndrome	Parkinson's
depression	
Alexithymia	
ADHD	
Schizophrenia	

Many of these conditions are characterised by altered movement patterns and/or disturbances in pain processing

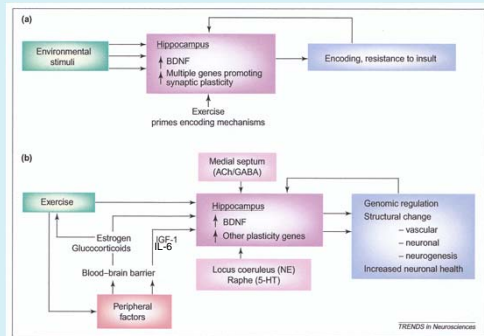
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Banati 2002

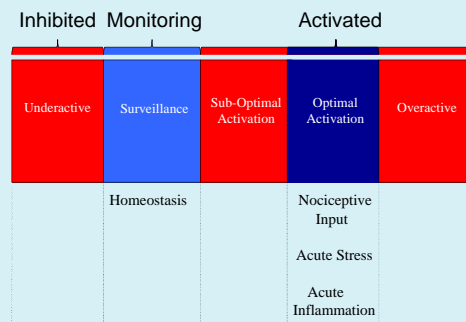
Butler and Moseley 2003
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Movement has "entry" into the brain.

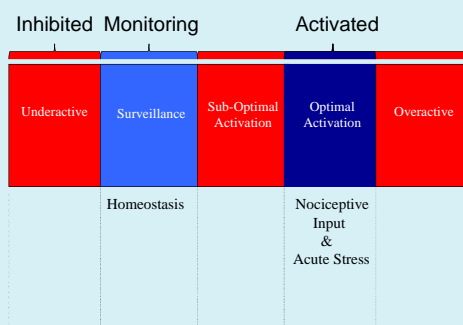


Cotman and Berchtold 2002

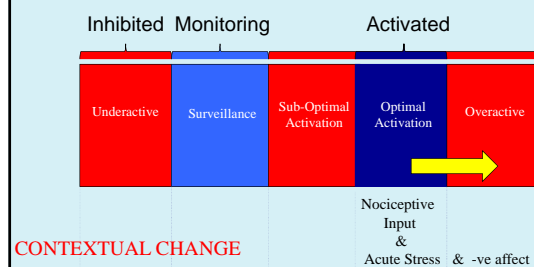
Spectrum of Self-Antigen – Auto-Antibody Interactions



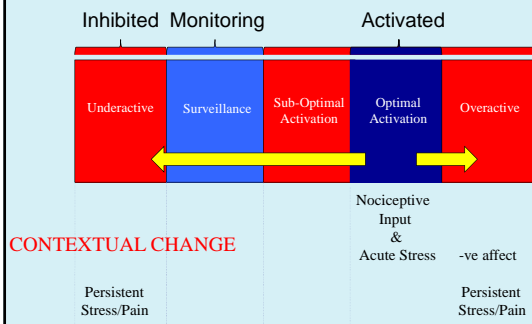
Activation levels of Auto-Antibodies – Pain and Stress



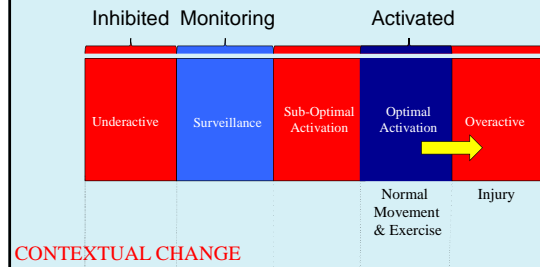
Activation levels of Auto-Antibodies: Pain & Stress



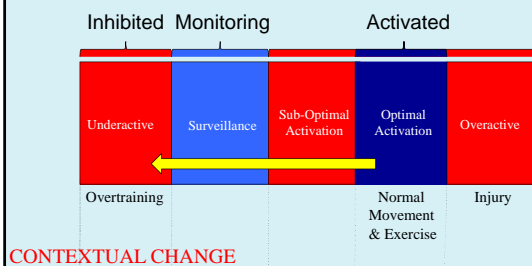
Activation levels of Auto-Antibodies: Pain& Stress



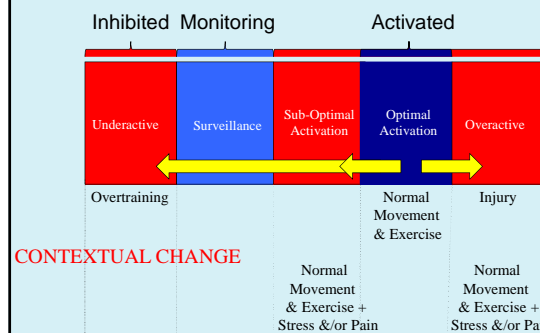
Activation levels of Auto-Antibodies - Movement



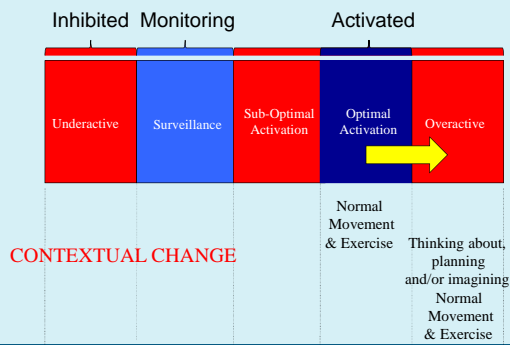
Activation levels of Auto-Antibodies - Movement



Activation levels of Auto-Antibodies - Movement



Activation levels of Auto-Antibodies - Movement



Ideas for Management

- Change the construct
- Understand what it is and how it works
- Make it easier
- Make it different
- Do it in a nice environment
- Do it with others
- Do it at the right time of day
- Enjoy doing it
- Make it challenging but achievable
- Know you are doing it and focus on doing it
- Relax - Eat better - Sleep Better

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= Pilates

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Needs the Research !!

Acknowledgements

KCL

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need answering!

