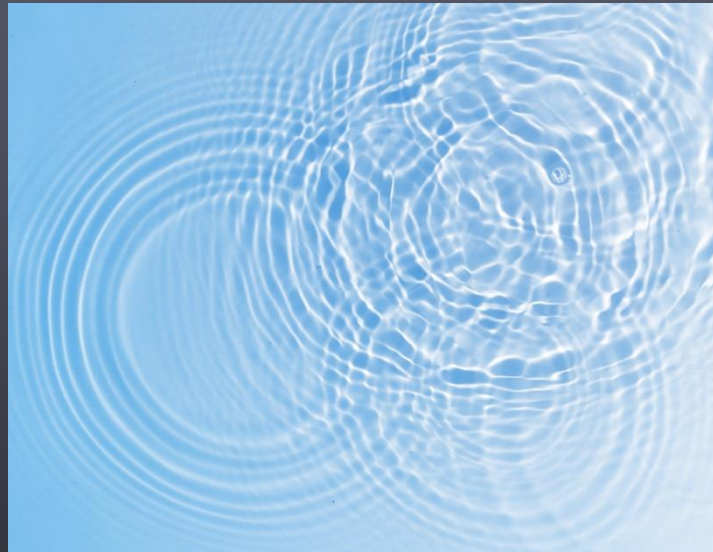


Process Approach in Osteopathy



Prof. Eyal Lederman DO PhD



Process Approach - A clinical reasoning model

Patient's condition



Management:

Which manual techniques to use?

Which exercise to prescribe?

What is the advice on self-care?

How to create supportive environments?

The condition



6 weeks after injury.....



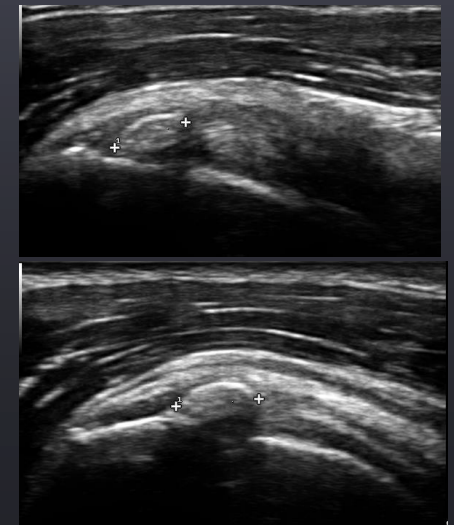
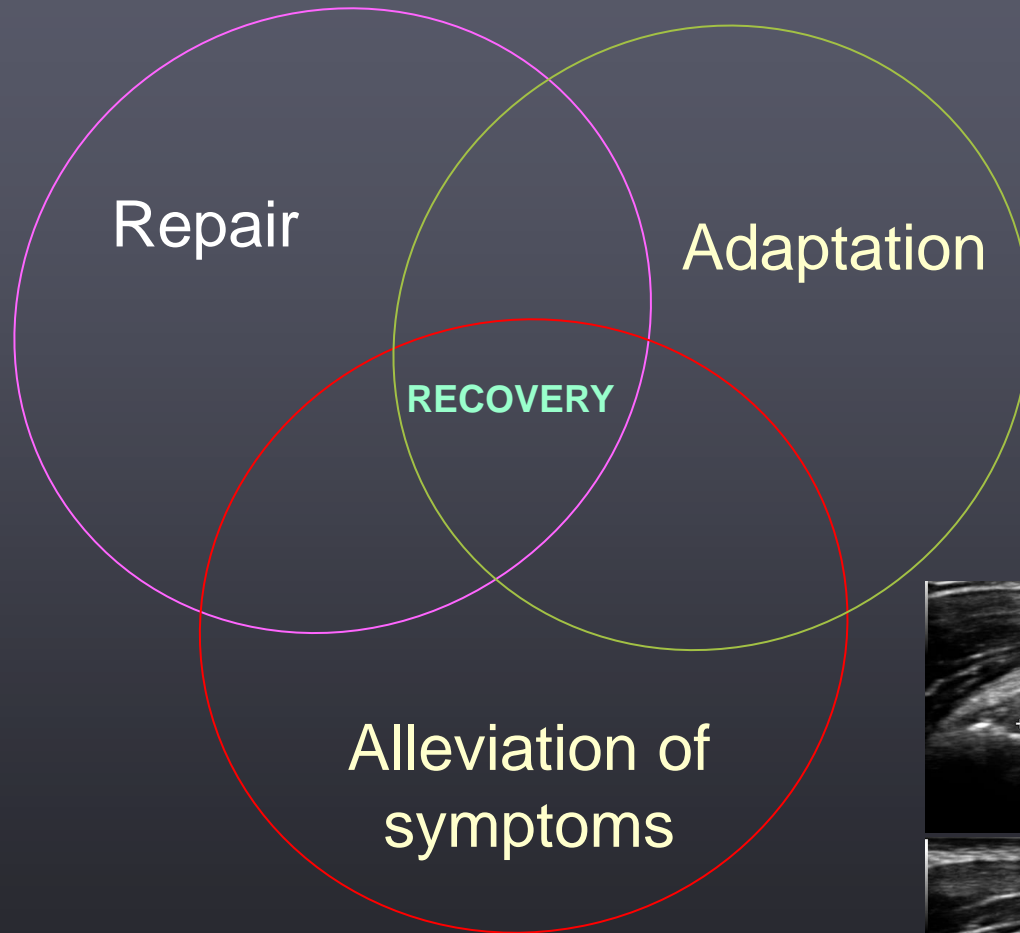
By which process will this individual recover their functionality?

Process Approach

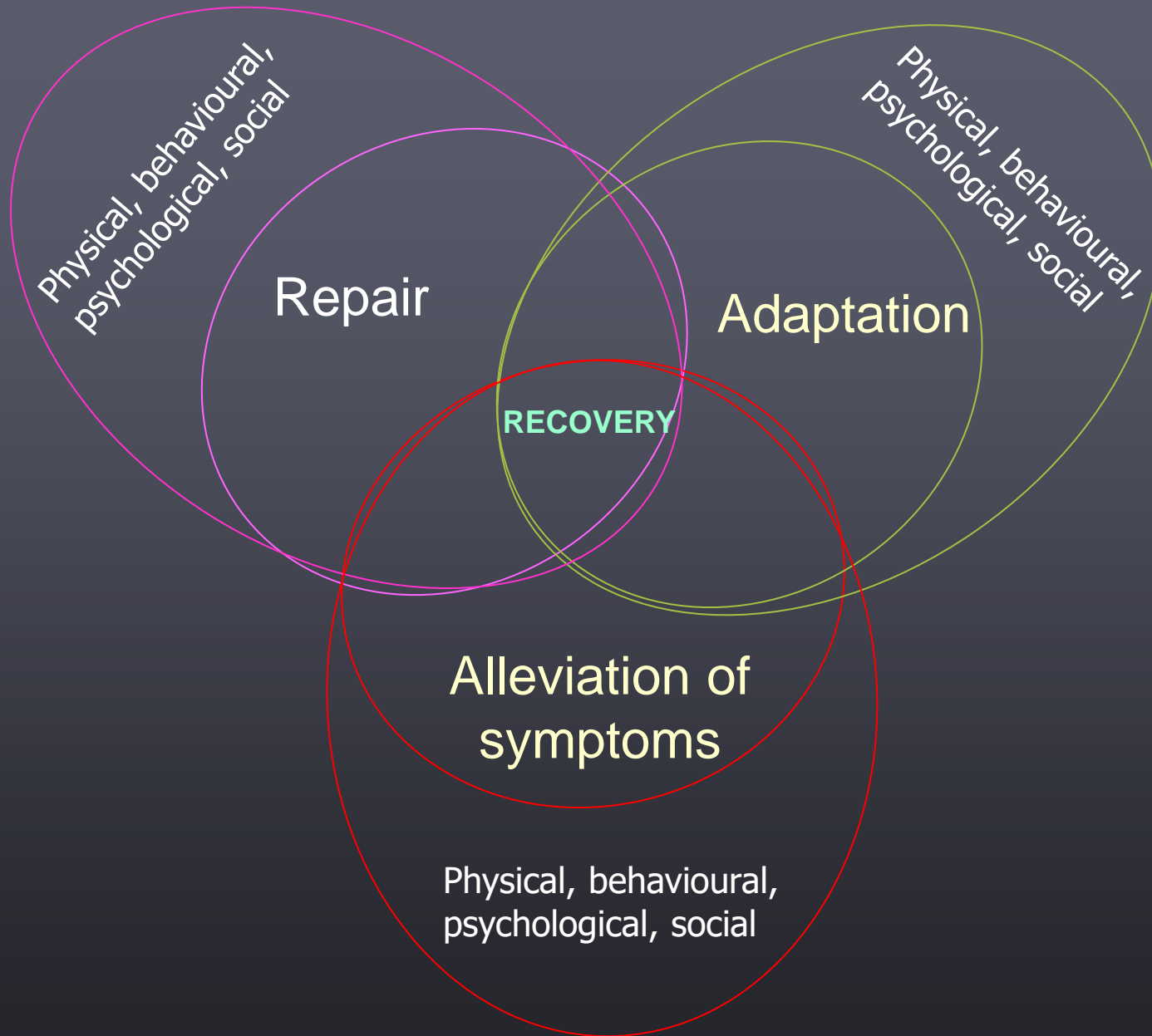
Person/body has self-recovery capacity.

Create environments that support the recovery processes

Three principle recovery processes

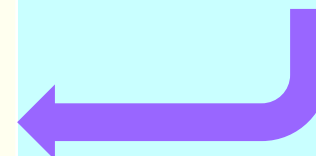


Recovery environments

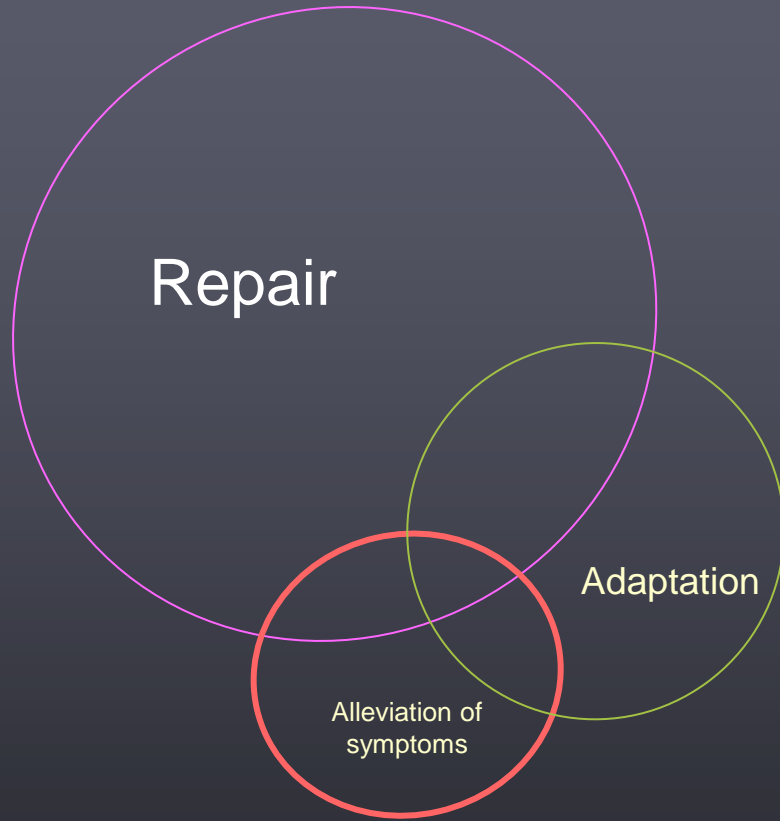


Recovery environments: management considerations

<i>Process</i>	<i>Condition</i>	<i>Specific physical management</i>	<i>Shared management</i>
<i>Repair</i>	All acute conditions, max 8 weeks: All tissue damage, Joint & muscle sprains, post surgery, blunt trauma, first phase of frozen shoulder,	Moderate cyclical and repetitive loading Applied locally to affected area Gradual loading Pain-free / tolerable movement Can be either active or passive Any movement pattern but preferably functional. Extra-functional is OK	Psychological Ease movement pain related anxieties, catastrophising, support, reassurance, comfort, Sooth and calm Support autonomy and internal locus of health (provide therapeutic companionship?) Install sense of control (& hope?) Therapeutic relationship - trust, non-judgmental, empathic.. Accept and work with contextual factors Cognitive Inform and empower Co-plan management Acknowledge and work with patient's goals Provide choice Behavioural Support/encourage recovery behaviour Raise awareness to avoidance behaviour Physical Functional movement Frequent exposure to activity
<i>Adaptation</i>	All chronic persistent conditions: Post immobilisation contracture, ROM rehab, postural and movement re-education/rehab, CNS damage/rehab, structural/biomechanical change, enhance/recover human performance	Active Task specific whole and goal movement Functional Repetition Overloading Discomfort likely and generally OK	
<i>Alleviation of symptoms</i>	Acute/Chronic pain/discomfort Acute/chronic stiffness	Many treatment modalities may be beneficial depending on patient expectations.. Sleep regulation & relaxation Physically: Active may be better than passive movement Cyclical movement may be better than static approaches Functional or extra-functional	



Treatment strategy acute injuries



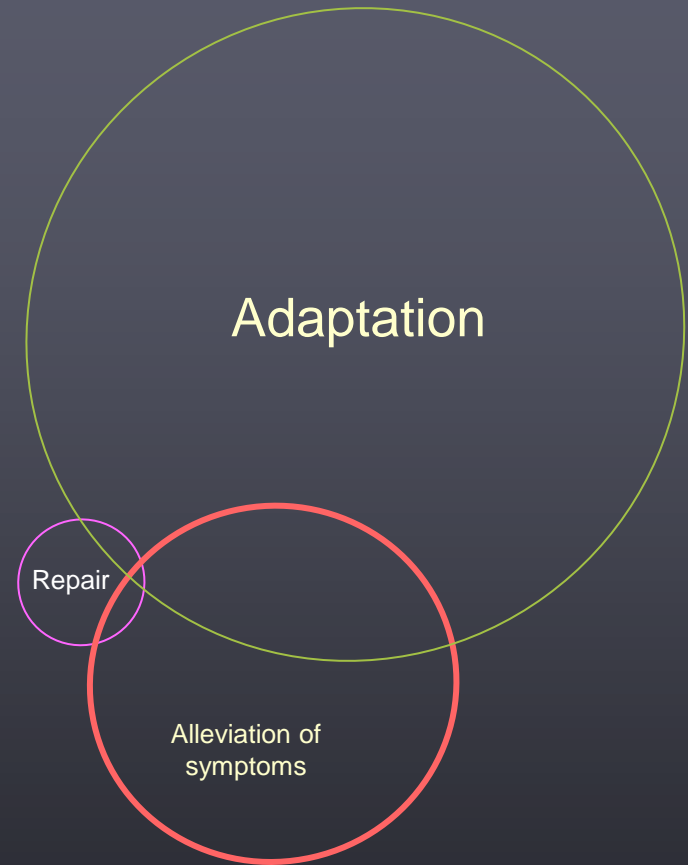
Acute phase

Long term

Consider this management

<i>Process</i>	<i>Condition</i>	<i>Specific management</i>	<i>Shared management</i>
<i>Repair</i>	All acute conditions, max 8 weeks: All tissue damage, Joint & muscle sprains, post surgery, blunt trauma, first phase of frozen shoulder,	Moderate cyclical and repetitive loading Applied locally to affected area Gradual loading Pain-free / tolerable movement Can be either active or passive Any movement pattern but preferably functional. Extra-functional is OK	Psychological Ease movement pain related anxieties, catastrophising, support, reassure, comfort, Sooth and calm Support autonomy and internal locus of health (provide therapeutic companionship?) Install sense of control (& hope?) Therapeutic relationship - trust, non-judgmental, empathic.. Accept and work with contextual factors Cognitive Inform and empower Co-plan management Acknowledge and work with patient's goals Provide choice Behavioural Support/encourage recovery behaviour Raise awareness to avoidance behaviour Physical Functional movement Frequent exposure to activity
<i>Adaptation</i>			
<i>Alleviation of symptoms</i>			

Post immobilisation / contractures

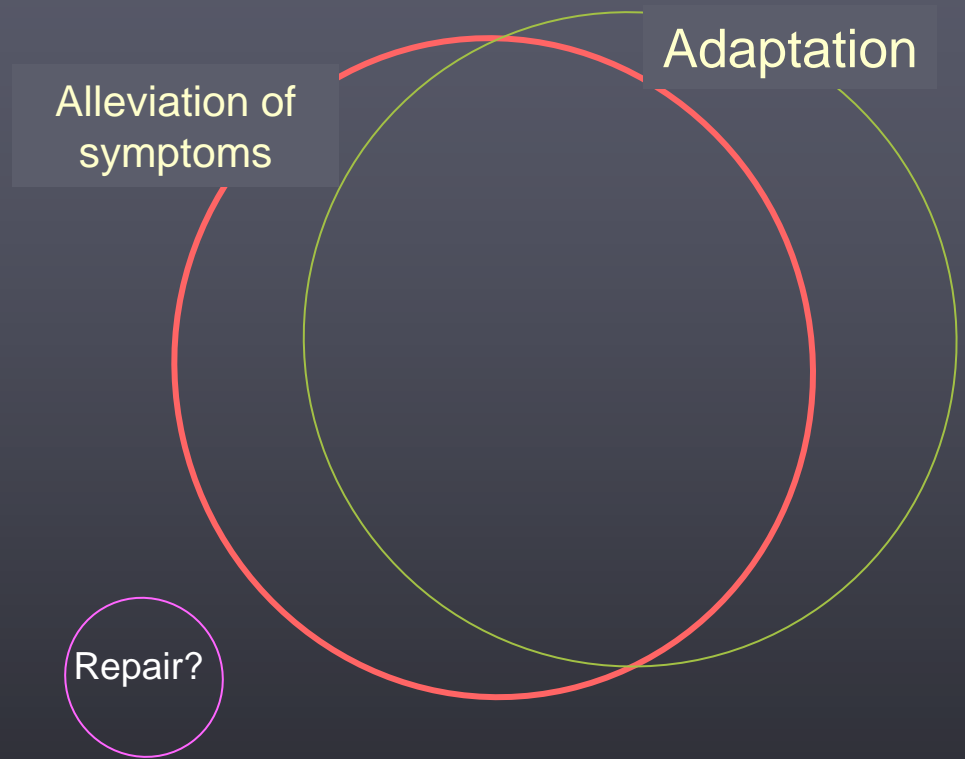


Reduced ROM

Consider this management

<i>Process</i>	<i>Condition</i>	<i>Specific management</i>	<i>Shared management</i>
<i>Repair</i>			Psychological Ease movement pain related anxieties, catastrophising, support, reassure, comfort, Sooth and calm Support autonomy and internal locus of health (provide therapeutic companionship?) Install sense of control (& hope?) Therapeutic relationship - trust, non-judgmental, empathic.. Accept and work with contextual factors
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<i>Alleviation of symptoms</i>			

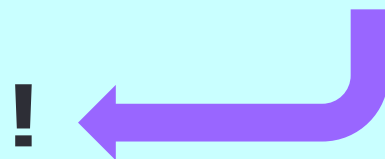
Chronic pain conditions



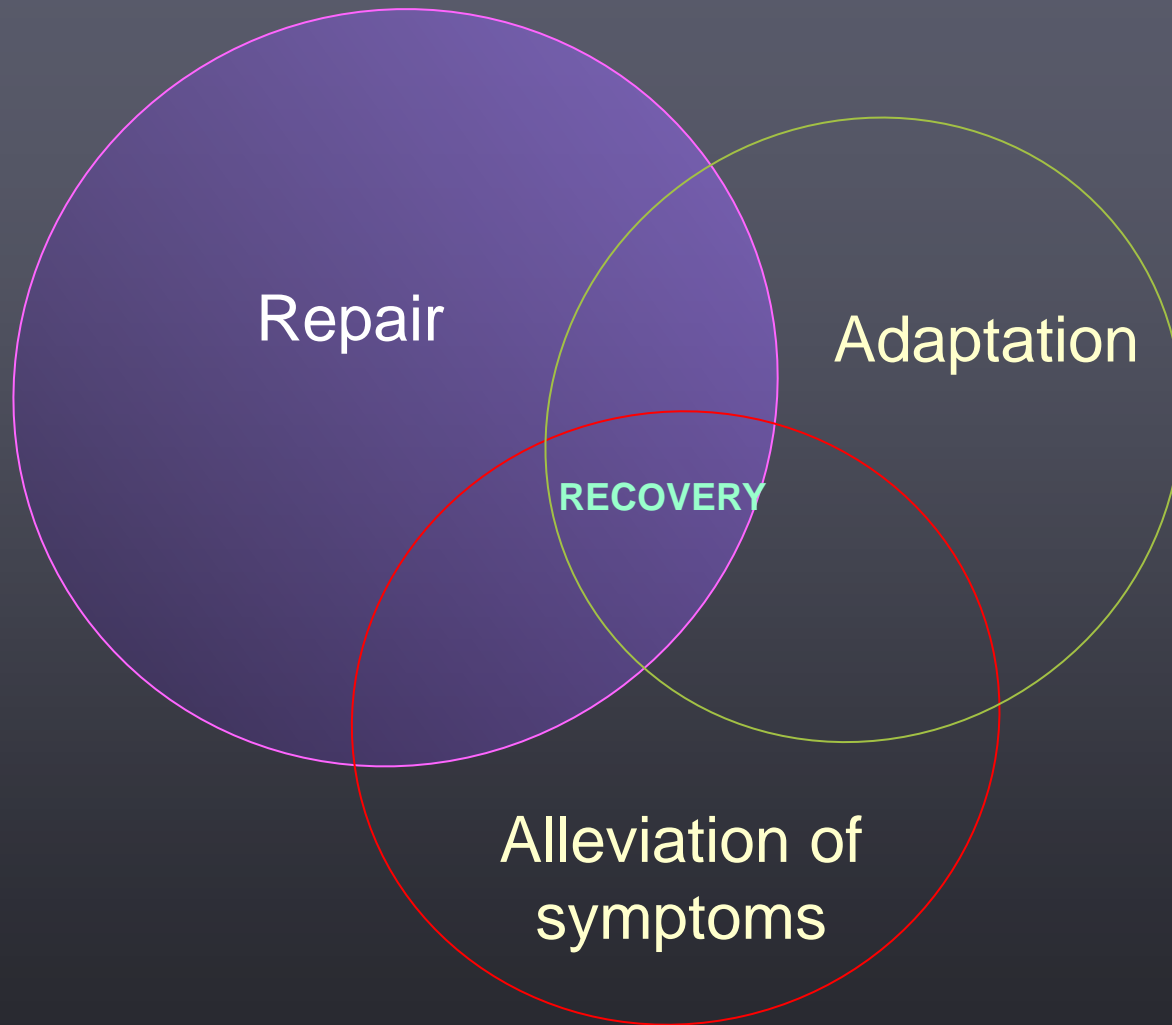
Acute phase

Chronic state

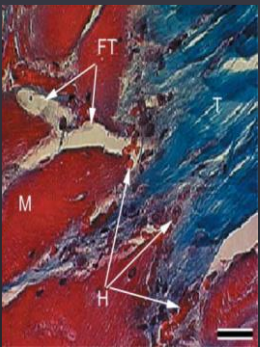
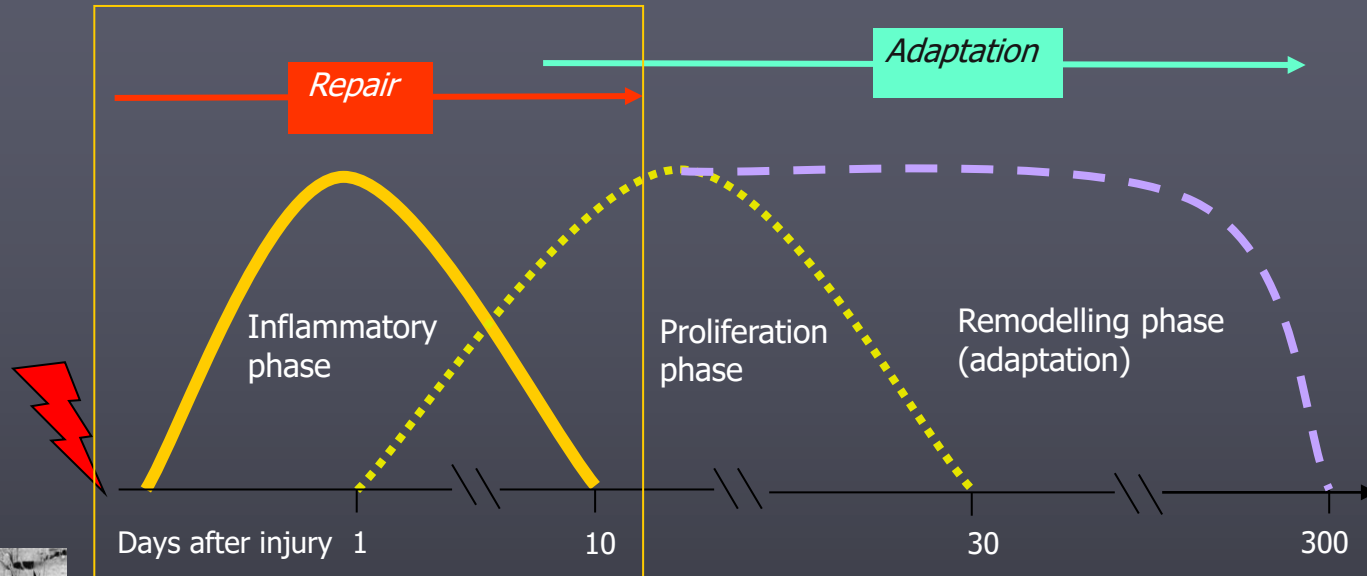
Consider this management

<i>Process</i>	<i>Condition</i>	<i>Specific management</i>	<i>Shared management</i>
<i>Repair</i>			Psychological Ease movement pain related anxieties, catastrophising, support, reassure, comfort, Sooth and calm Support autonomy and internal locus of health (provide therapeutic companionship?) Install sense of control (& hope?) Therapeutic relationship - trust, non-judgmental, empathic.. Accept and work with contextual factors
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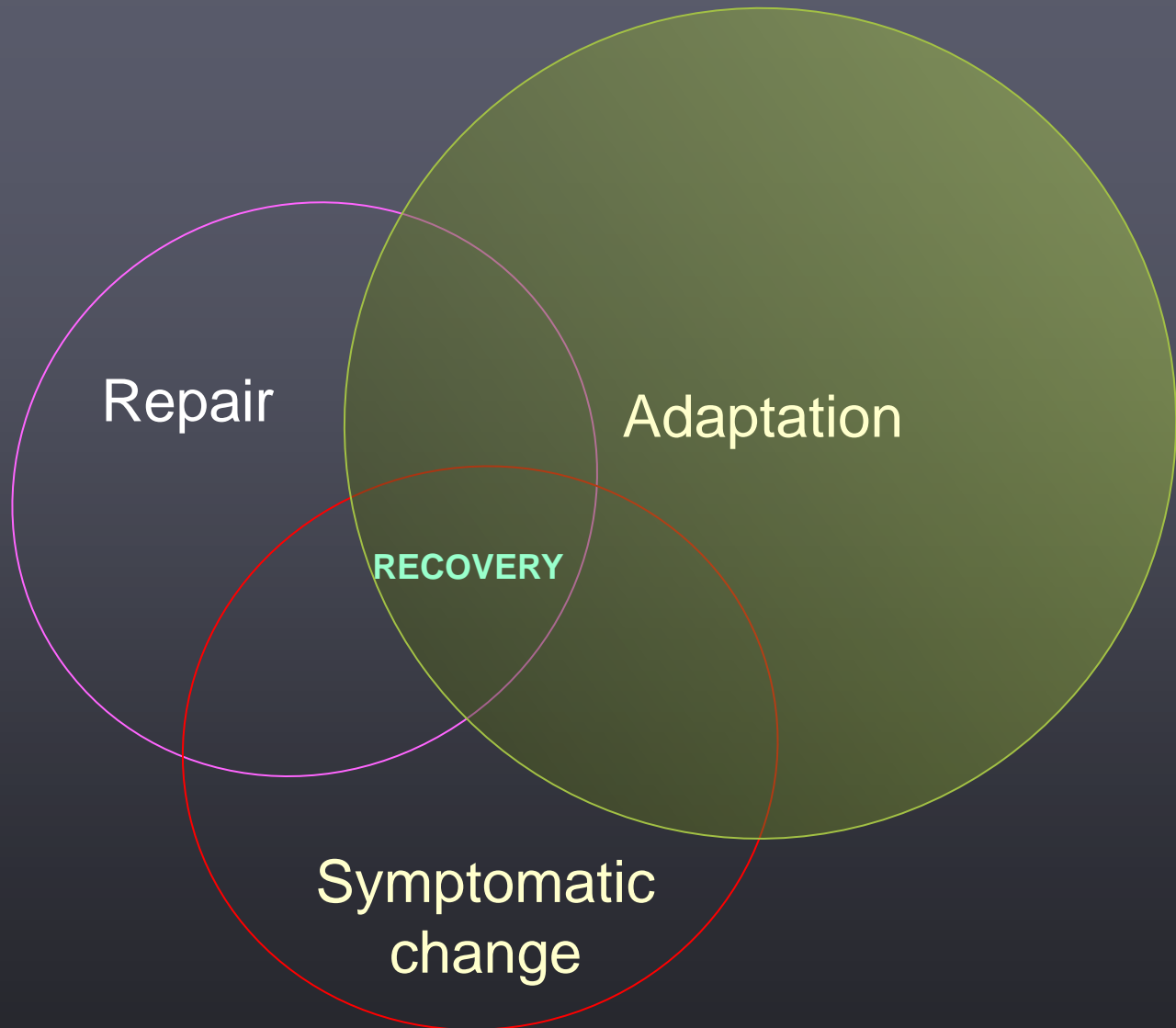
Recovery by repair



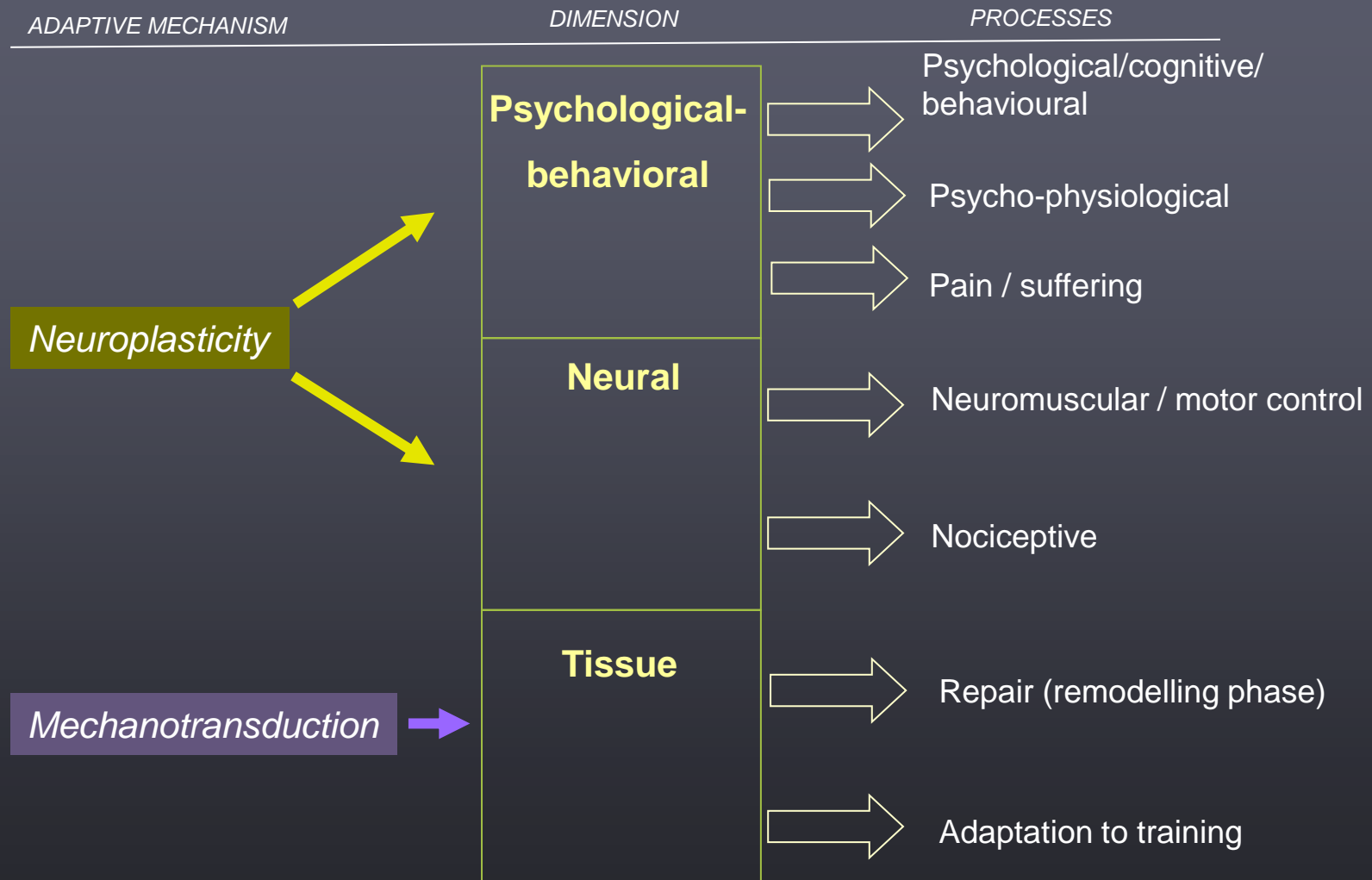
Repair process



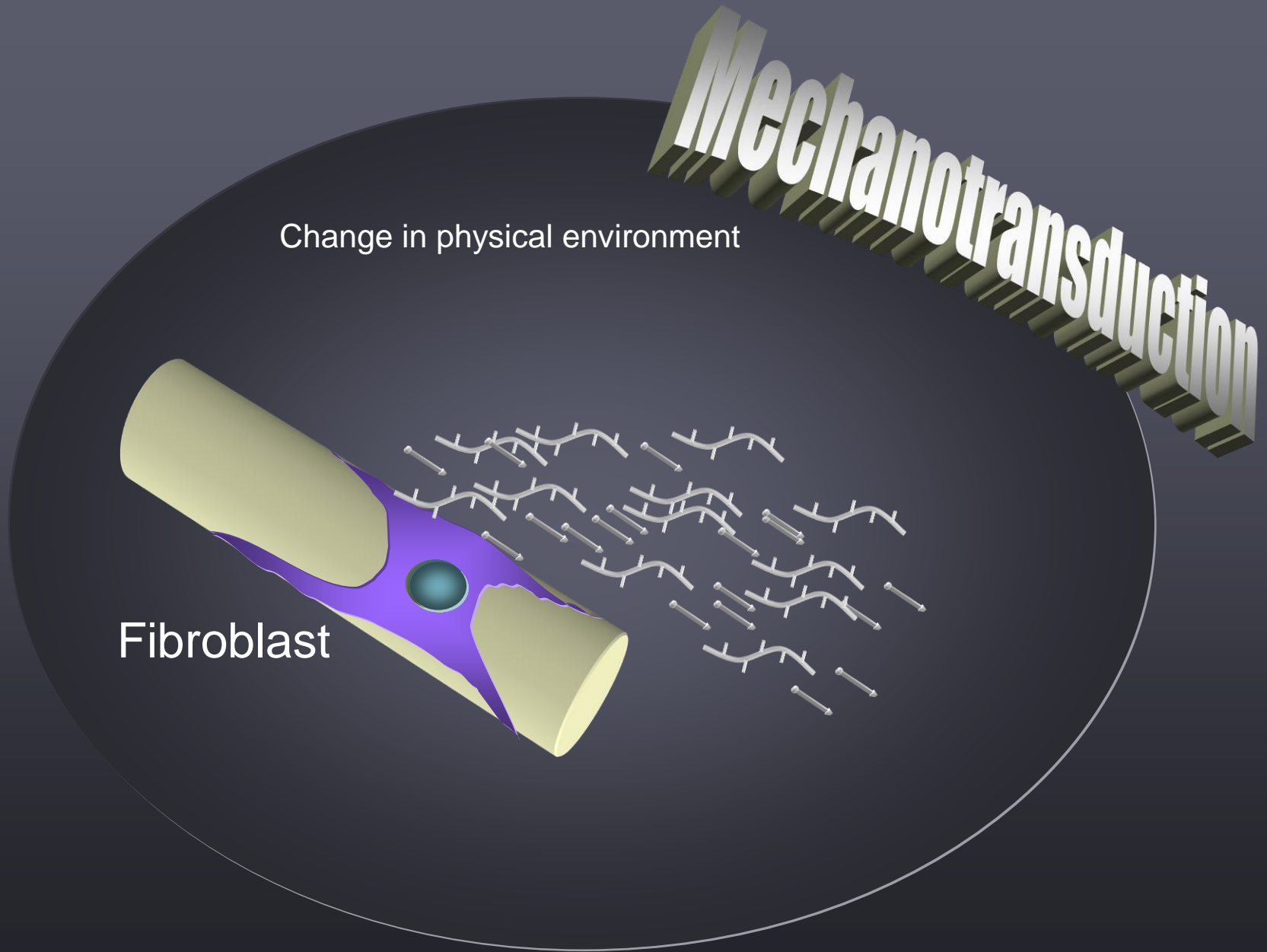
Recovery by adaptation



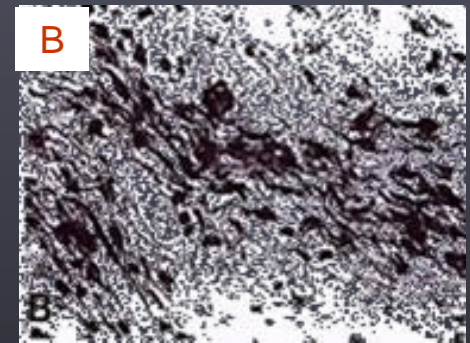
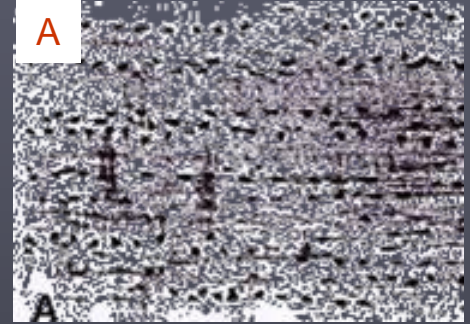
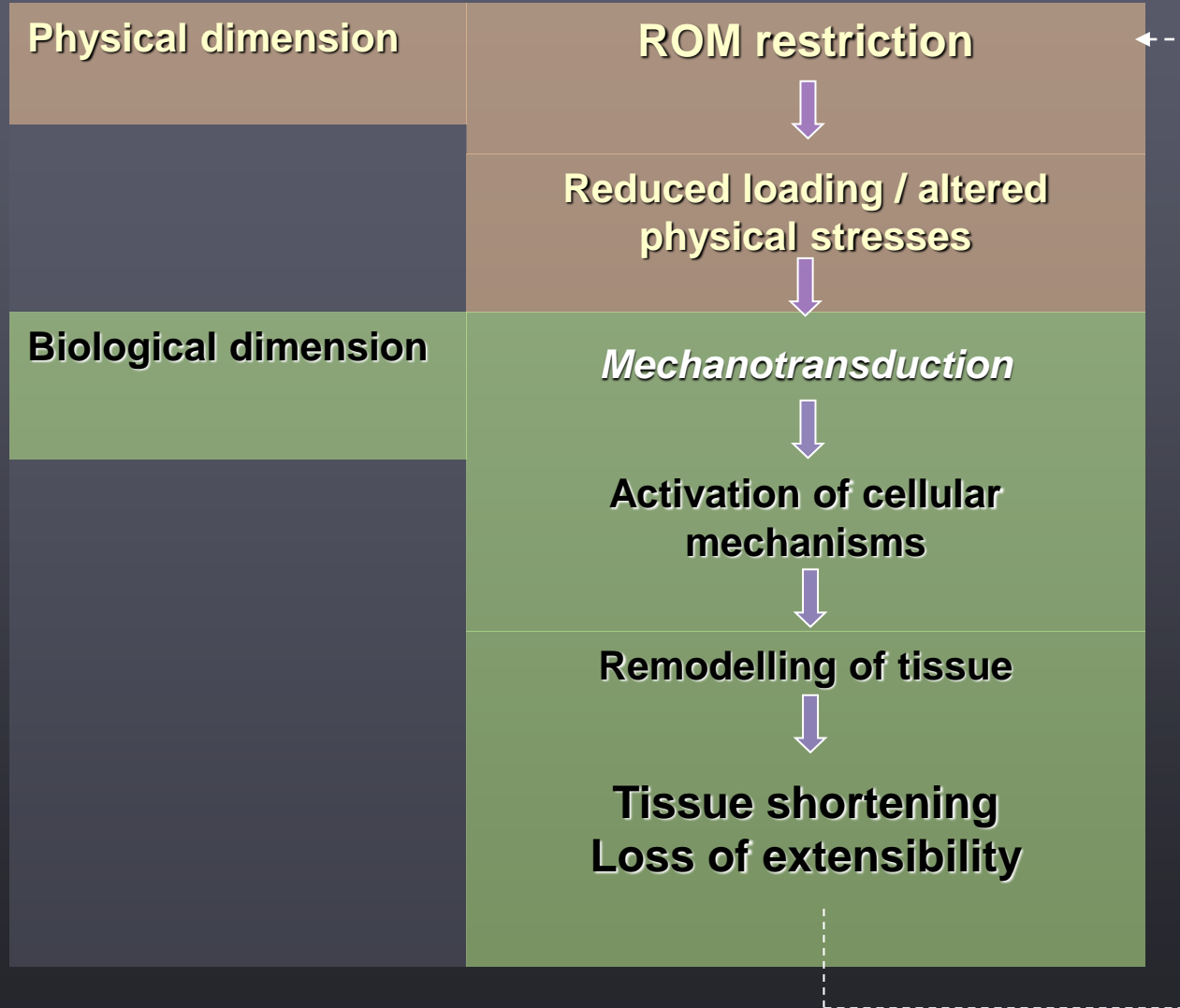
Adaptation: whole person multidimensional event



Tissue processes in adaptation

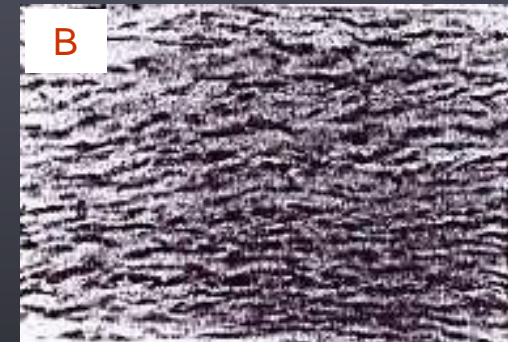
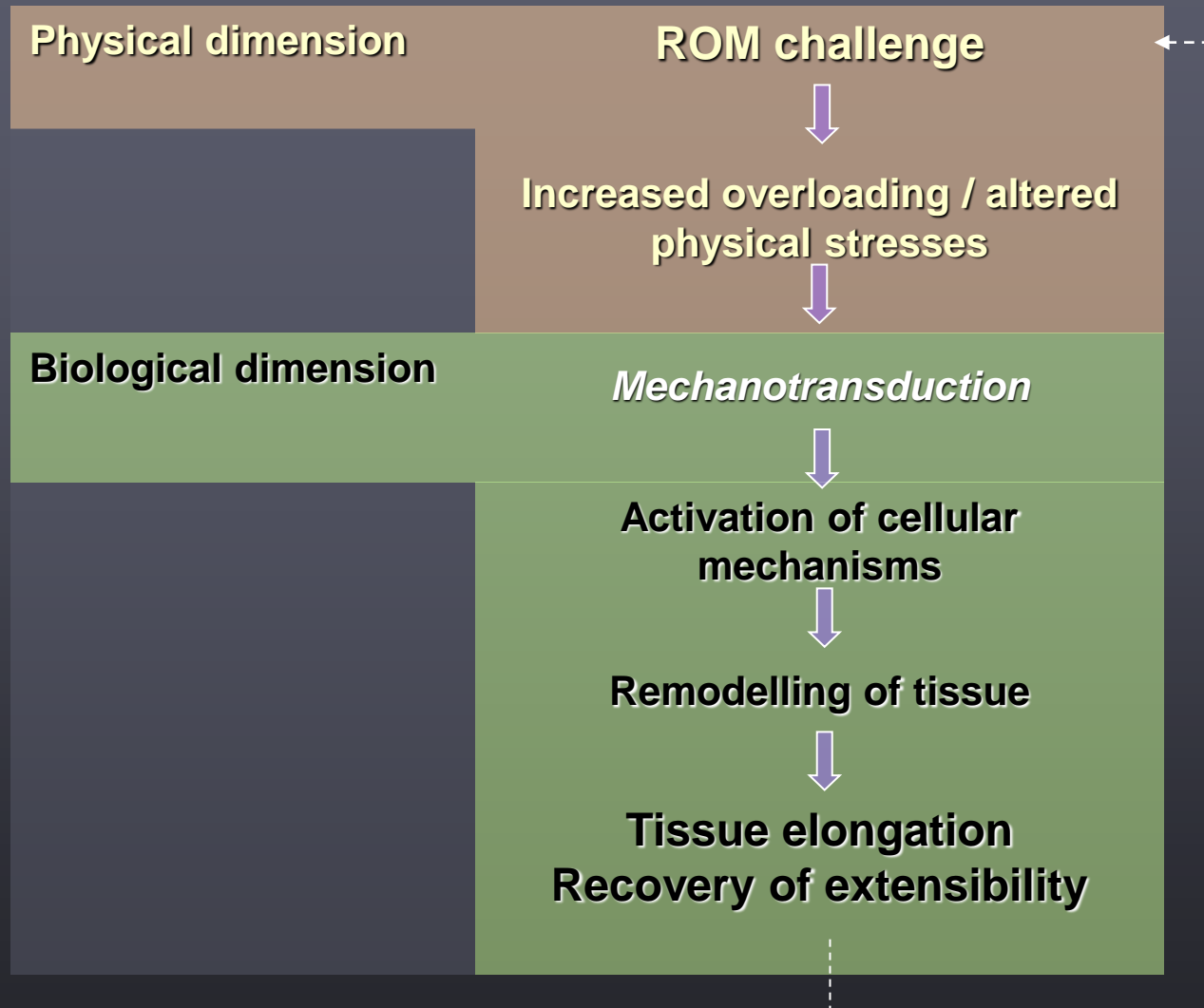


From the physical to the biological dimension



A. Normal ligament
B. Ligament after 6 weeks of immobilisation

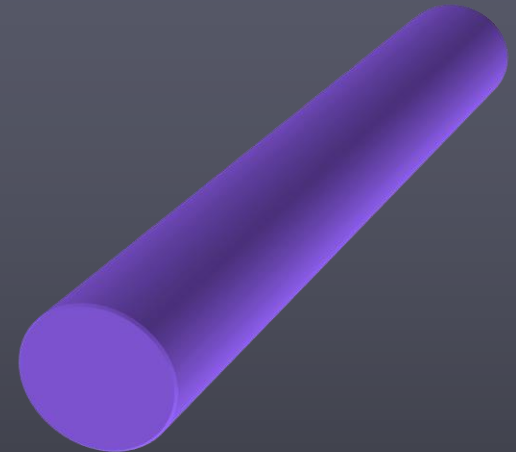
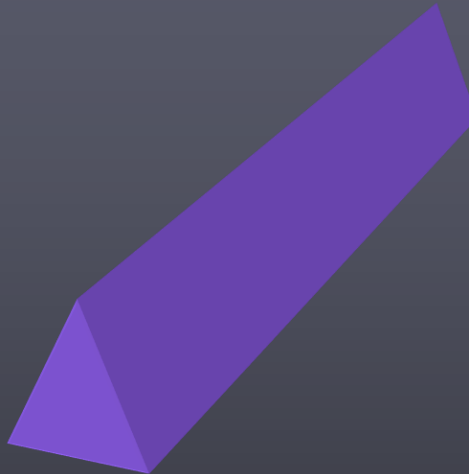
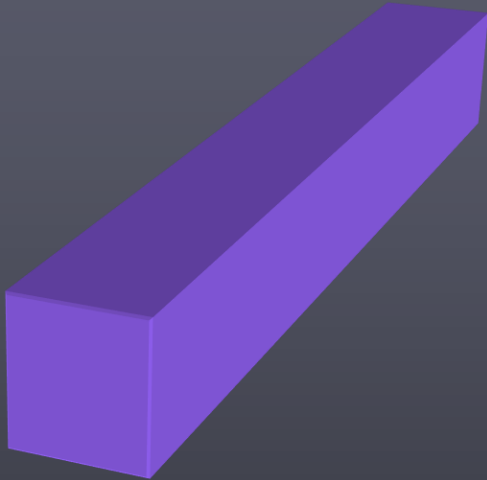
Recovery: from the physical to the biological dimension



A. Effects of immobilisation
B. Effects of 6 weeks of passive movement

Specificity

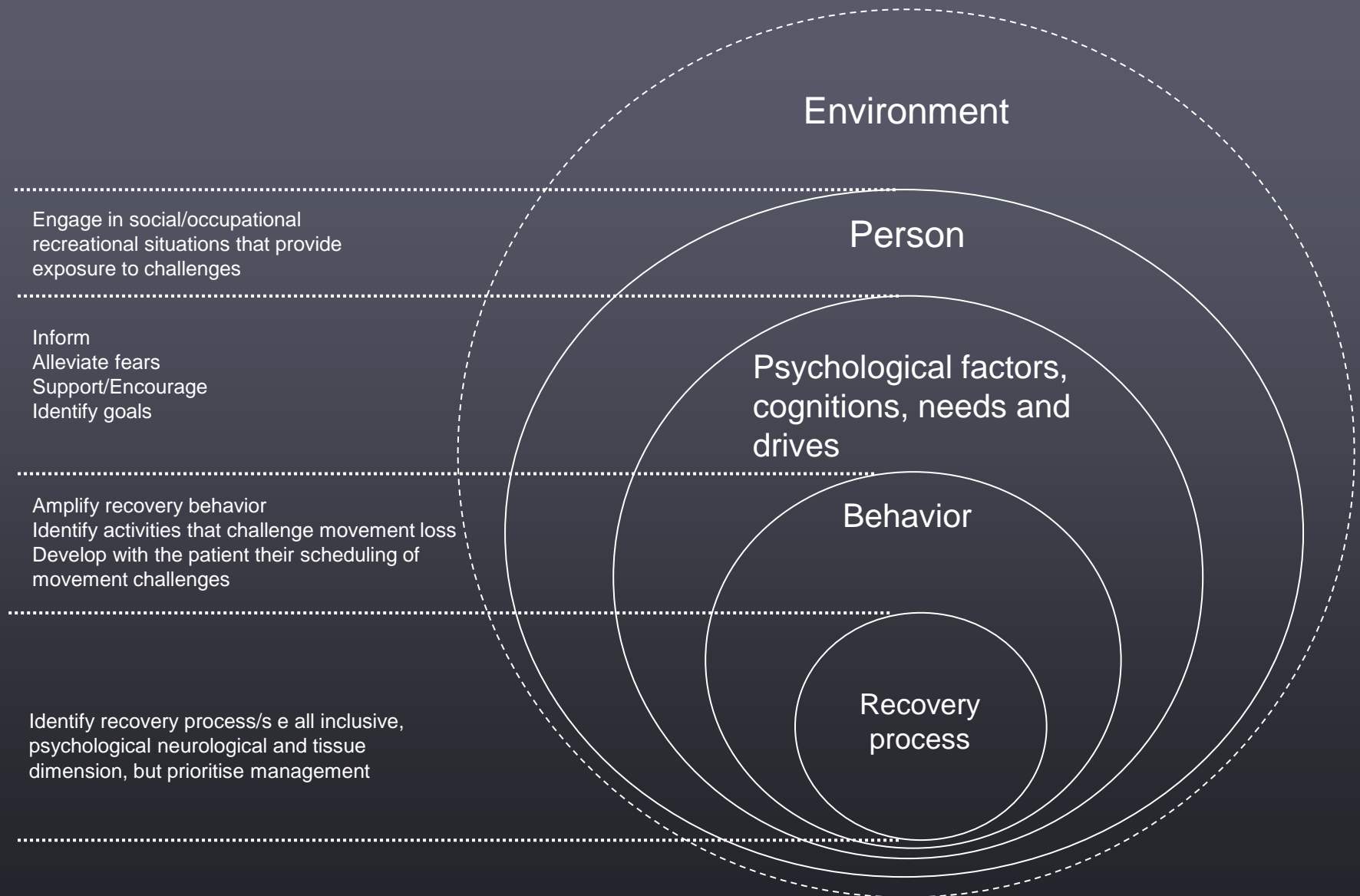
Tissue, motor, and physiological adaption is specific for the practiced task



Lederman E. 2010 Neuromuscular Rehabilitation in manual and physical therapies. Elsevier

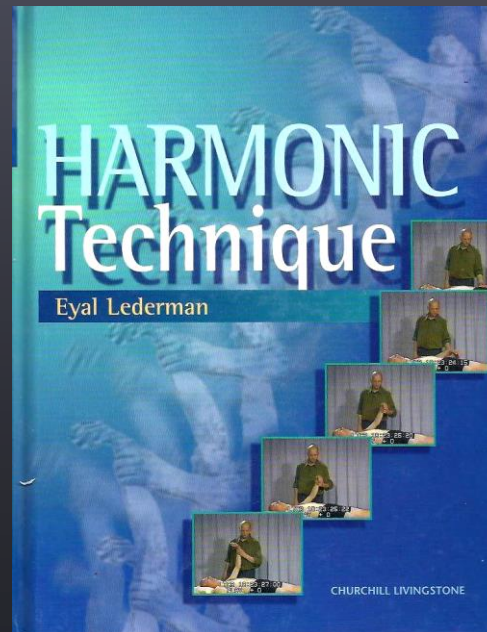
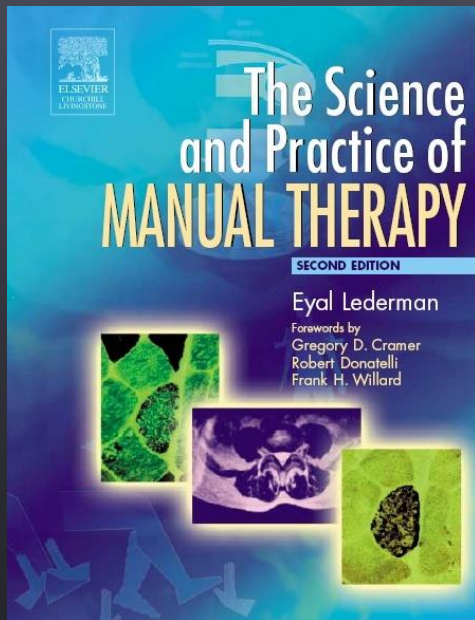
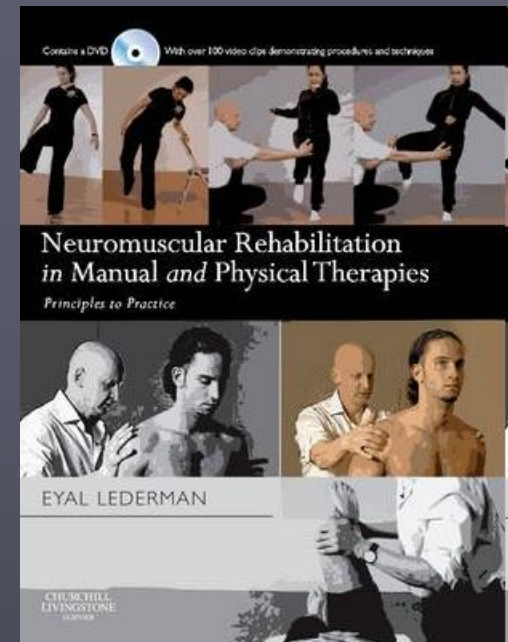
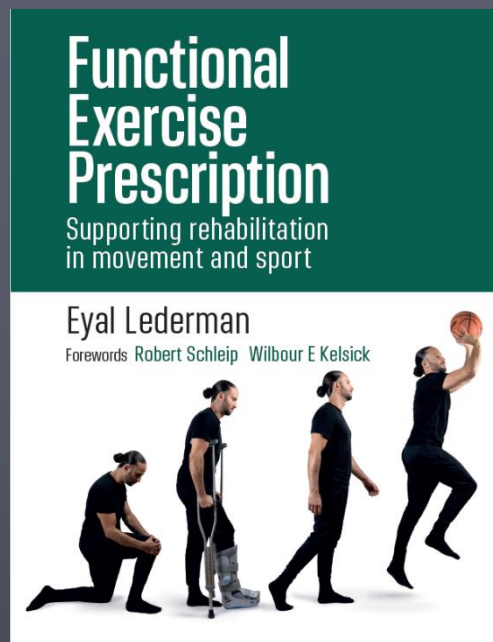
Goldspink, G. et al. (1992). Gene expression skeletal muscle in response to stretch and force generation. *American Journal of Physiology*, 262, R356-R363.
[Abe T](#), [Kumagai K](#), [Brecht WF](#) 2000 Fascicle length of leg muscles is greater in sprinters than distance runners. *Med Sci Sports Exerc.* Jun;32(6):1125-9.

Multidimensional environment for recovery



Process Approach: some principles

- ▶ Three recovery processes
- ▶ Processes determine management
- ▶ Person's functionality determines therapeutic goals
- ▶ Creating supportive environment for recovery
- ▶ Self-care at the centre of management



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