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Adopting and adapting sports medicine philosophies to manage workplace injuries

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Sport and Work Background Experience

Over past 25 years

- Team Doctor in Rugby League, Basketball and Rugby Union
- Medical consultant to Workers Compensation Insurer(s)
- Delivered of on-site (sports) clinics for large employers
- Owner of large Occupation Rehabilitation Company
- Director NSW Workcover
- Chief Medical Officer ARU

Currently owner of FPES who delivers
pre-employment and post-injury solutions Australia-wide
and also CMO World Rugby



Recognise differences – sport v work

1. Injury reporting – method and timing
2. Number of team members
3. Liability issues – not relevant in sport
4. Medical Treatment
 - **Timing**
 - **Type**
5. Engagement of Key Parties
6. Attitude to return to 'activity'
7. Motivation
8. Knowledge – medical and capacity



Acknowledge key similarities – work v sport

Majority of injuries are musculoskeletal injuries

Sprain and strain injuries are frequent



Positive philosophies used in sport injury

1. Early active treatment
2. Priority appointments – role of team physiotherapist
3. Treatment providers held accountable for outcomes
4. Focus on structured early exercise rehabilitation
5. Early referral for specialist medical opinions
6. Support from key stakeholders – coaches, managers
7. Injury accepted as reported – no liability issues
8. Motivation high – injured athlete and treatment providers
9. Treatment provider attitude is focused on ‘what they can do’ not ‘what they can’t do’



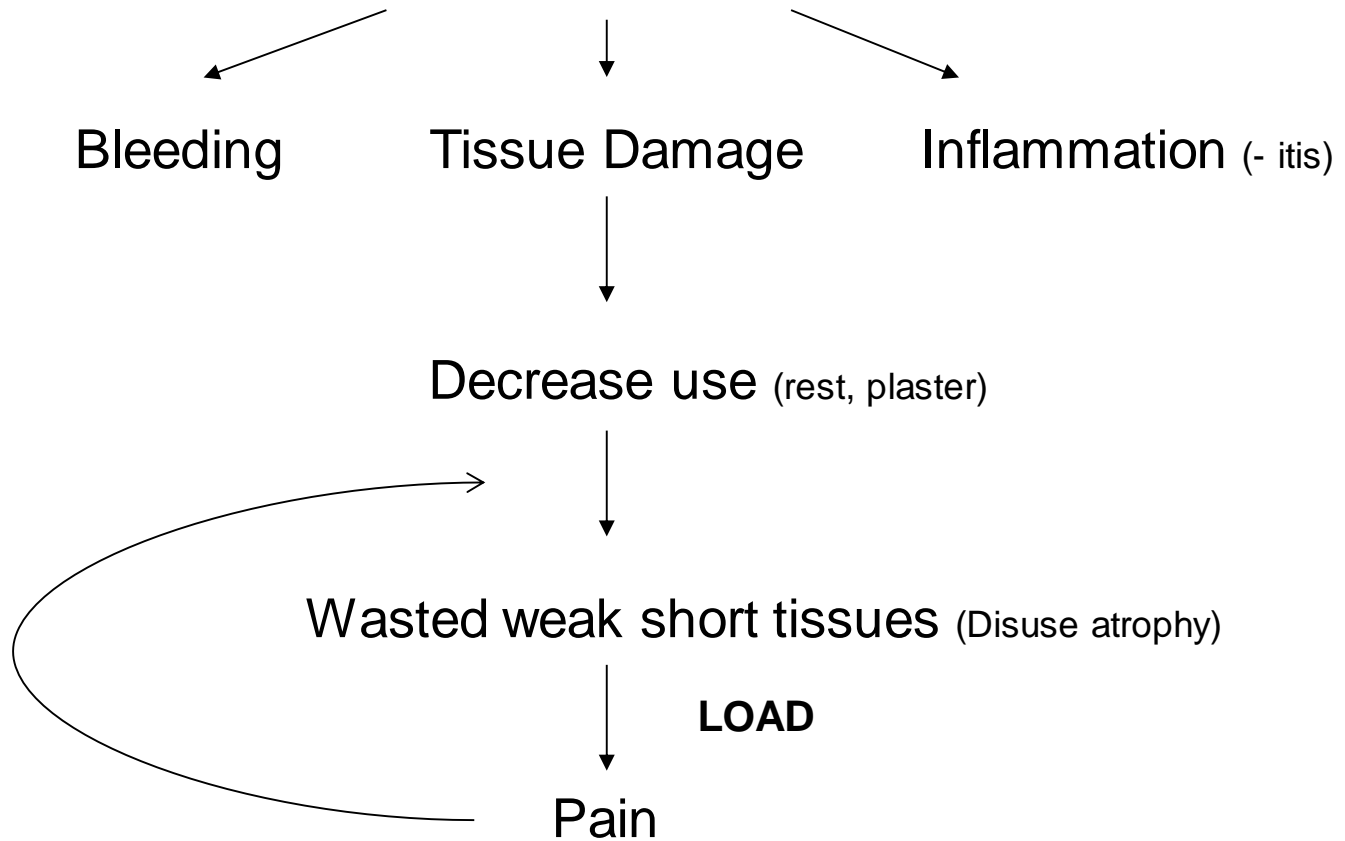
1. Early active treatment

To understand what is meant by active treatment
you need to understand the injury process



Injury Process

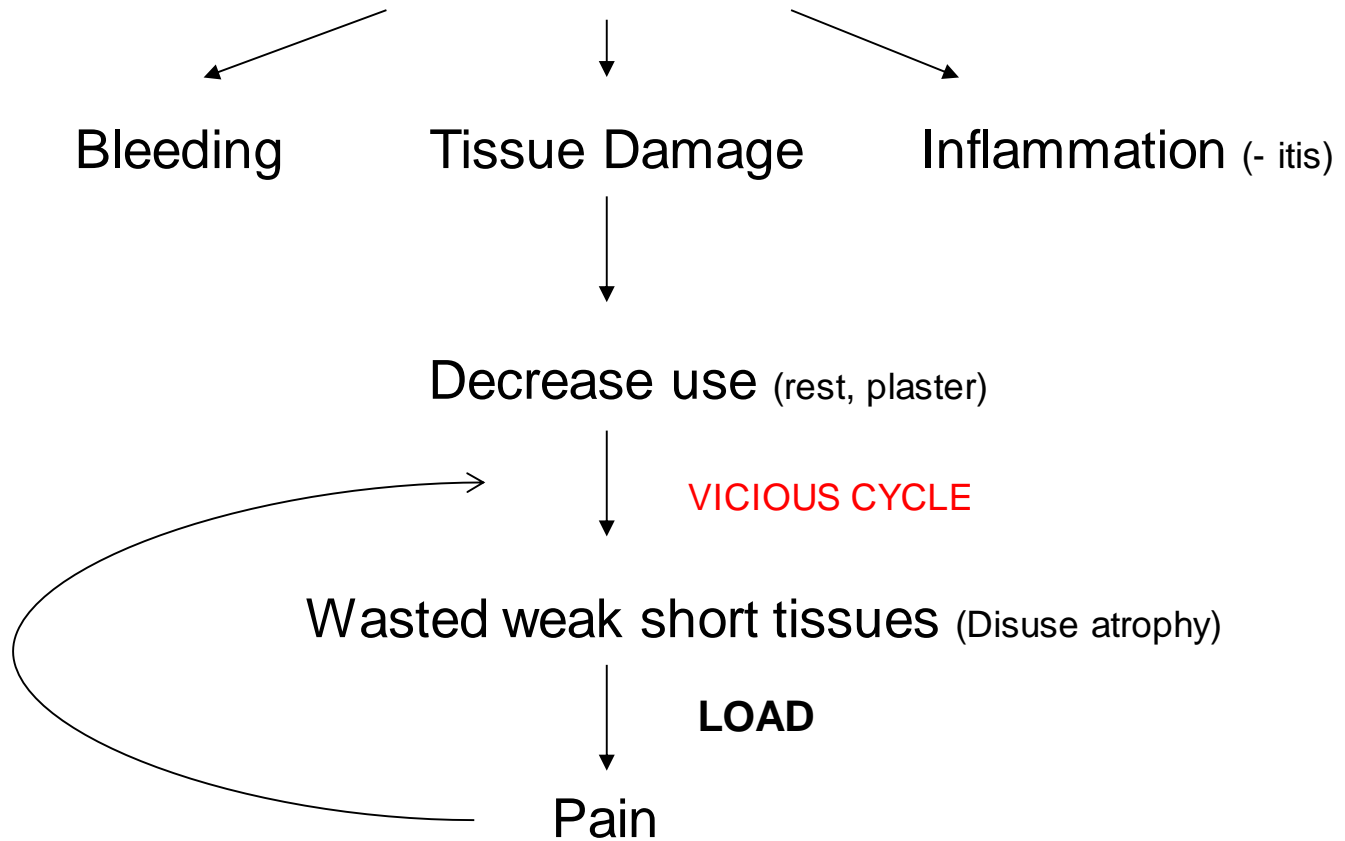
(back injury, hamstring strain, # arm)





Injury Process

(back injury, hamstring strain, # arm)





Active Treatment

(back strain, hamstring, # arm)

Bleeding
(Control)

Tissue Damage

Inflammation (- itis)
(Reducing)

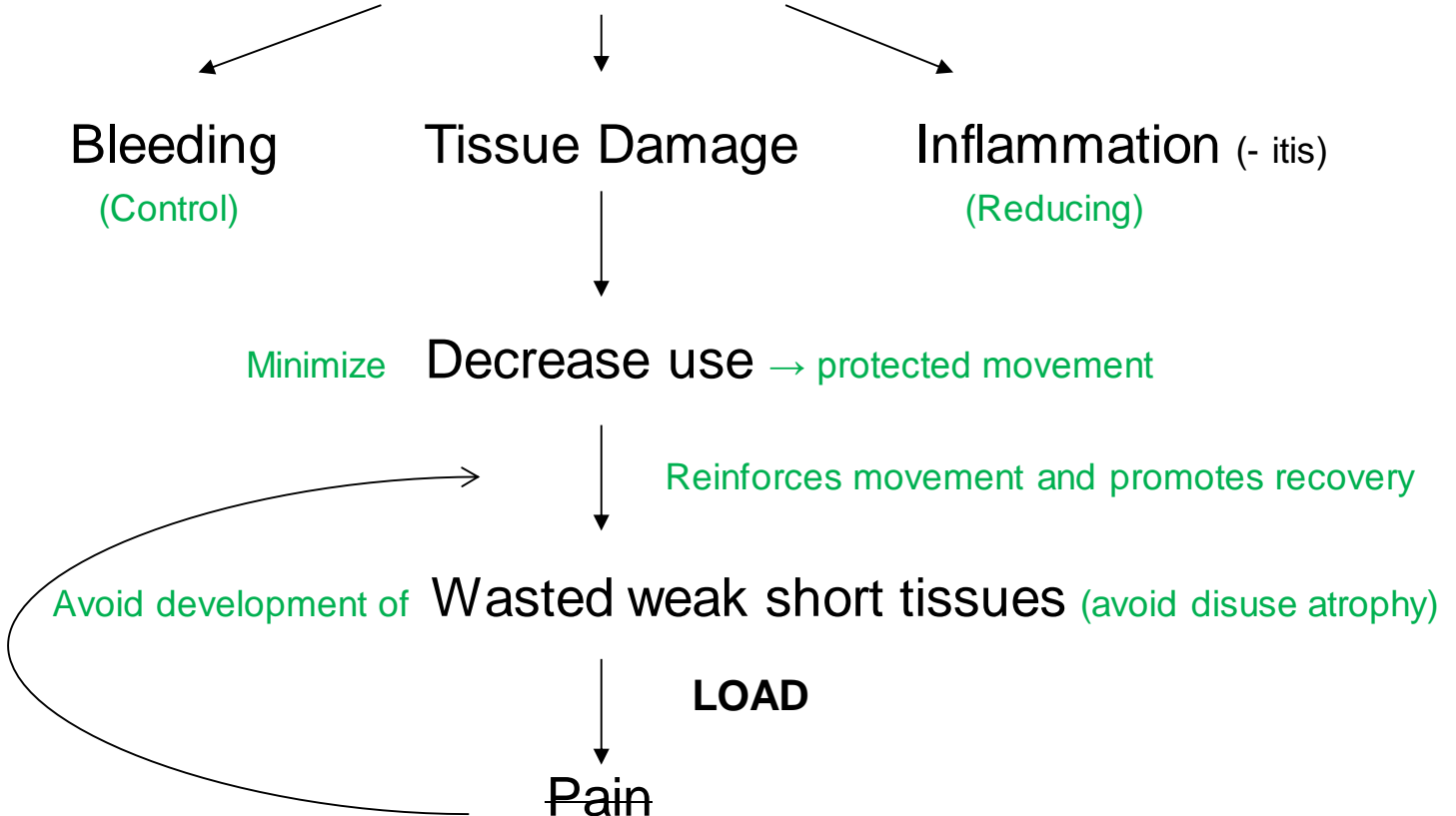
Minimize Decrease use → protected movement

Reinforces movement and promotes recovery

Avoid development of Wasted weak short tissues (avoid disuse atrophy)

LOAD

Pain





Changing role of physiotherapy in sport

Initially (1990-2000)

- Team Doctors and Physios were part-time
- All injuries were seen by Team Doctor
- Team Doctor more experienced than physio in m-s medicine
- **Doctor central figure in injury management**

Evolution (2000 on)

- Physios full-time (**2 – Access**), Team Doctor remained part-time
- All injuries screened by Team Physio – 90% resolve without doctor
- Physios expertise in m-s medicine increased / Team Doctors specialist
- Physios appointed based on expertise and outcomes (**3 – Accountable**)
- **Physio central figure in injury management**



4. Structured Exercise Rehabilitation

Initially (1990-2000)

- Hands on management dominated majority of treatment
- Exercise rehabilitation started late
- High injury recurrence rates due to ongoing muscle weakness

Evolution (2000 on)

- Hands on treatment early to reduce muscle spasm and increase ROM. Reliance reduces quickly
- Rehabilitation exercises – start ASAP – isometric exercises
- Quicker recovery and less injury recurrence due to emphasis on strengthening program



5. Early referral to Specialists in sport

- Key characteristic of injury management in sport is early referral for specialist opinion if injury not progressing
- Focus is on diagnosis and treatment not liability and disability
- If surgery required, it is undertaken early and not 6 months after failed conservative approach
- Delayed surgery → more disuse atrophy → slower post-op recovery



7. Key Stakeholder Support

- Increased communication – physio and coach work together
- Coach and manager supports recovery as they have an interest in return to play
- Poor support leads to Psychosocial issues



8. Motivation

- Usually not an issue in sport as majority of injuries recover within 6 weeks
- Is an issue in sport in long-term injury – post surgery
- Not an issue in workers if injury progress and recovery within 6 weeks



9. Attitude of treatment provider

- In sport always looking at “what they can do”
- Go home and rest for a week does not exist
- Everyone in the team is aware of recovery goal and works towards it



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FPES – Physio Recovery Program

Adopts these sports medicine philosophies
and
has adapted these philosophies to the
workplace injury environment



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Key Feature – FPES Physio Recovery

Physiotherapist
is the primary injury manager
with specialist support provided for injuries
failing to progress



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Key Feature – FPES Physio Recovery

High quality physiotherapist
is the primary injury manager
with specialist support provided for injuries
failing to progress



Why physiotherapists?

- Model that is used in professional sport
- Have expertise in diagnosis and management of musculoskeletal injuries - 99% of their work
- Focus is on treatment not certification
- Understand the concept of active treatment
- Positive attitude towards recovery because they understand injury
- Focus on “what can be done” not “what can’t be done”
- GP musculoskeletal injury exposure - < 5% of all consultations



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FPES – Physio Recovery Program

Why is it unique – incorporates characteristics of sports model

1. Focus is not on injury management but on early active **treatment (provider) management**
2. Early referral and treatment via **1300 number** + priority appointments
3. Scalable – **over 400** physiotherapy practices Australia-wide
4. Treatment providers accountable - each practice is monitored for compliance and **recovery outcomes** – poor results counselled ± replaced
5. Intervene early in treatment via **Specialist Medical Opinion** if recovery expectations are not met
6. **Communication** enhanced through the use of a custom built software system
7. Includes an **automated RTW Planner**



Common Problems for Self Insurers

1. Delayed appointments - medical and physiotherapy
2. Poor communication from treatment providers
3. Poor injury progress
4. Identifying psychosocial issues
5. Excessive treatment
6. Development of accurate and relevant RTW Plan



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FPES Physio Recovery - Solutions

1. Delayed appointments – 1300, priority physio and specialist appointments
2. Lack of communication – IT system – physio to workplace, insurer
3. Poor injury progress – High risk cases identified via IT system and FPES staff investigate and develop plan
4. Psychosocial issues – Identified with physiotherapists reports
5. Excessive treatment – Monitored and managed by FPES staff
6. Development of accurate and relevant RTW Plan – Simplified by automation of RTW Plans



Automated RTW Planner

Developed to support RTW Coordinators who are usually part-time in this position and time-poor due to primary jobs demands.

Supports staff with this difficult technical RTW activity, that is, developing accurate and relevant RTW Plans



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FPES Automated RTW Planner

- Unique tool developed by FPES and available as part of the Physio Recovery Program
- Automatically matches IW capacity with suitable duties available within the workplace
- Allows development of an end-to-end relevant staged RTW Plan within 2 minutes



Results – Physio Recovery Program

Physio Recovery Program

- Period – 6 months (January - June 2015)
- Total injuries – 3438 injuries

Initial Classification

- Non Physio Recovery – **32.3%** lost time certification (**25% unfit**)
- Physio Recovery – **1.7%** lost time certification

Physiotherapy treatment sessions

- 91% of all injuries have ≤ 8 treatment sessions
- Average number of treatment sessions for all injuries 4.75 sessions



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FPES Pre-employment screening

- Major focus – identifying musculoskeletal injury risk
- Identifies individuals with current active injury or individuals at “high risk” of injury
- Match the new employees capacity with the physical requirement of the job – RIGHT PERSON – RIGHT JOB



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FPES Pre-employment solutions

- ▶ Advanced musculoskeletal screen – physiotherapy based (1996)
- ▶ In-house screen – Screen-SAFE (2007)
- ▶ On-line screen – Medequest (2010)
- ▶ Combination

All based on injury risk profiling philosophy

Market leaders – over 500,000 screens over 20 years



All FPES Pre-employment solutions

- Standardised questionnaire and assessment → **consistency**
- Uses injury risk profiling philosophy – identify the highest risk
- Based on injury risk factors documented in the scientific literature → **evidence-based**
- Supported by risk algorithm → **objective decision-making**
- Capable of being tailored to any organisations → options full screen, in-house, on-line or combination



Unsuitability Rates

Advanced Musculoskeletal Screen	11.1%
Screen-SAFE®	13.6%
Medequest®	9.5%



Results – Pre-employment

Full Screen – NSW Health over 45 years old study

- Study period – July 2012 – March 2016
- 2011-12 – > 50% of employees are age over 45
- 2012-2016 – screening period
 - ▶ 140 first year employee claims
 - ▶ 3 first year employee claims to over age 45

Of the 3 injured employees over 45 – nil were screened

Cost to date of the 3 injuries - \$ 191,000



Results – Pre-employment

In-House Screen

- Control period – 2007
- Study period – 2008-14
- Man hours worked in study period – 68.2 million man hours
- Screen numbers – 66,680 screens
- Measure – musculoskeletal injuries in first year of employment

RESULT – 67.9% reduction targeted injuries



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Questions?