

DYNAMIC WARM UPS
and
RECOVERY TECHNIQUES

James Veale BAppSci (Hons)
james.veale@research.vu.edu.au

Alan Pearce PhD



Provide latest sport science research
and experience current best practice



Real world case study examples



Stretching in the warm-up
may not enhance flexibility



Flexibility is a component
of fitness



Stretching in the warm-up
does not protect players
from injury

Flexibility training does
protect players from injury

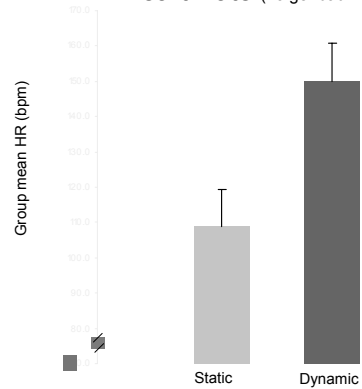




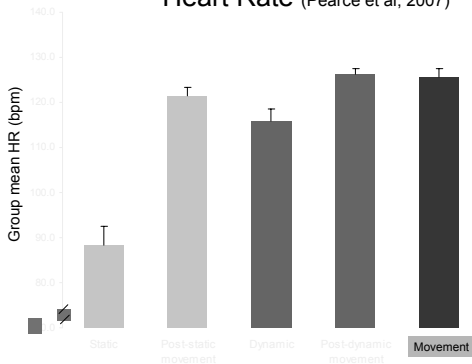
Purpose of warm-ups?

- Increase peripheral circulation
- Increase muscular temperature
- Increase neuromuscular activation
- Increase metabolic efficiency
- Decrease joint and muscle stiffness
- Focus attention on task at hand

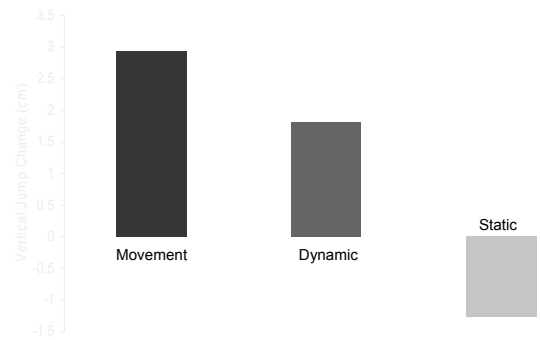
Heart Rate (Faigenbaum et al, 2005)



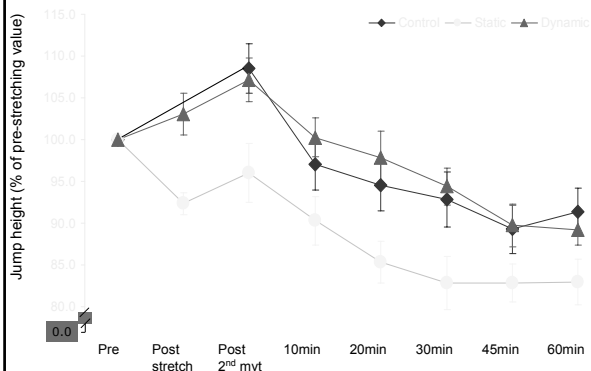
Heart Rate (Pearce et al, 2007)



Vertical Jump Height (Wright et al, 2006)



Vertical Jump Height (Pearce et al, 2007)



How to Plan a Warm-Up?

- Low-Intensity movements
- Small distance & close proximity activities / games
- Move into larger games / activities
- Incorporate footballs everywhere possible
- Incorporate Dynamic stretching between activities
- GAME DAY
- Think about including drills based on game plan

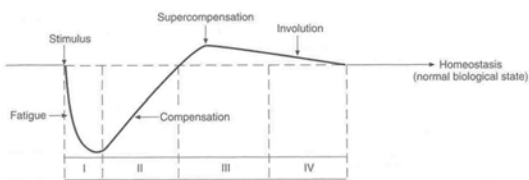


Example Warm-Up Plan

- Jogging – forward / side-to-side with handballs / one forward – one back with ground balls etc
- Active calf stretch
- 3 on 1 keepings off / groups of 3; 1 protect the ball carrier / 20sec rotations
- Leg Swings
- Basic partner kicking on the lead / light contested partner kicking
- Back rolls / side-to-side / rotations
- Basic Lane work technique running – build up to 90%+, work on technique tips and acceleration changes - 15m max.



Recovery in the training cycle



Competitive cycle includes on a weekly basis:

Training, Taper, Competition, Recovery.



Types of fatigue experienced

- Physiological - increase in blood supply
- Neurological - promoting muscle relaxation
- Nutritional - restoring fluid/fuel (food) supply
- Psychological - promoting psychological relaxation



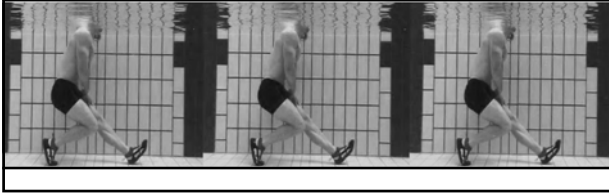
Why do recovery?

- Muscle soreness
- Delayed onset muscle soreness
- Reductions in muscular power
- Decrease in flexibility, and/ or
- Reduced endurance capability

Accelerate physiological restoration

Accelerate the post-exercise recovery:

- Re-hydration and nutrition
- Stretching
- Massage
- Swimming and water walking/ running
- Contrast temperature (hot/ cold) immersion
- Low intensity aerobic and weight training



Flexibility and Massage



Hydrotherapies

- Alternating showers
- Alternating baths
- Cold immersion
- Deep water



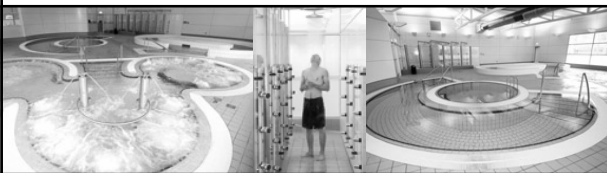
Deep water running

- Avoids ground impact
- Reduces load on skeletal structures
- Compressive pressure on muscles



Contrast baths/showers

- Alternating hot/cold water
- How many times?
- How long for?



Contraindications

- Junior athletes
- Older populations
- Illness/injury



Post Training / Post Match

- What?
- When?
- How?



Future directions

Australian Institute of Sport

- Halson, Vaile et al – Peripheral fatigue/overtraining

Victoria University

- Pearce, Veale, Cassar – Central fatigue

