Special Considerations for PR1 and PR2 Rowers

Nick Baker – High Performance Coach, British Rowing

7 Long Years …

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Session Aims

- Thought provoking rather than exhaustive given time slot – a narrow topic area but hopefully I can send you away with at least one idea to play with
- Hopefully relaxed and interactive – feel free to heckle
- Details at the end to get in touch if you want to dig into any of the topics I talk about. Open to chat further …

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Safety!

Swimming

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Strength Training

- Hip extension focus for PR2's
- Thoracolumbar extension for PR1's
- Single leg variations drive stability around hip/trunk to oppose impairment

- Higher number of sessions (4-5 weekly) with more targeted aims – changes towards Summer.
- Keeps them healthy to tolerate rowing load

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Key Joint Health

Don Gatherer neck harness – Great for rehabbing cervical disc issues and building paravertebral and upper trap strength.

Stott Pilates sessions – joint mobility, balance, end range control, conditioning

Freeform lower limb mobilisation – Greater freedom/feel at catch.

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Technical/ Lifestyle Considerations

17 months

- Often step straight into HP programmes with no prior experience of the sport.
- Usually a need to make rapid technical progression alongside rapid physical change.
- Need to develop a HP athlete lifestyle quickly – peer support can boost coach input.
- Rapid technical gains from rowing with coaches/athletes initially

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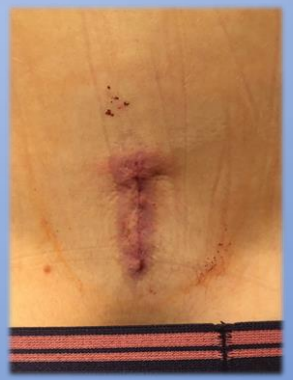
Technical/ lifestyle Considerations

- Boat dynamics still the same. If you can coach rowing you can coach PR1's and 2's!!
- Still bodyweight driven through footplate primarily for both PR1 and PR2.
- Every disability likely to need completely individual set up – experimentation and persistence required.
- Rowing with able bodied athletes or coaches (health warning!) great way to upskill quickly and develop 'boat feel'.
- Bigger boat set ups can be great for learning e.g. PR1 2X
- With new regs for PR1's core stability is even more crucial – ability to row floats off and get the most from residual strength below injury level or strap.
- With new regs for PR2's lower body strength is even more crucial where possible – ability to brace against the boat or use residual knee angle on fixed seat to drive the boat.



Sep 2019

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Body Composition

- Consider lower calorific needs
- Use knowledge of athletes training history to set realistic goals
- Optimise ability to complete training load or race with appropriate targets at different points in the season
- Consider Vit D and Calcium levels in those with spinal injuries. Reduced bone density is an injury risk below injury level

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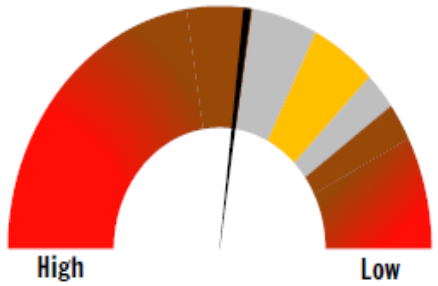
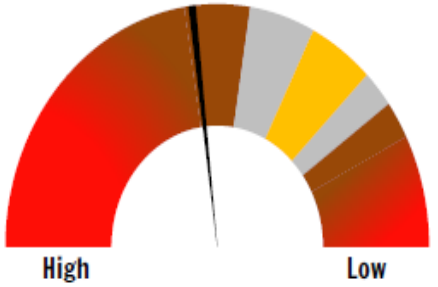
Performance Targets

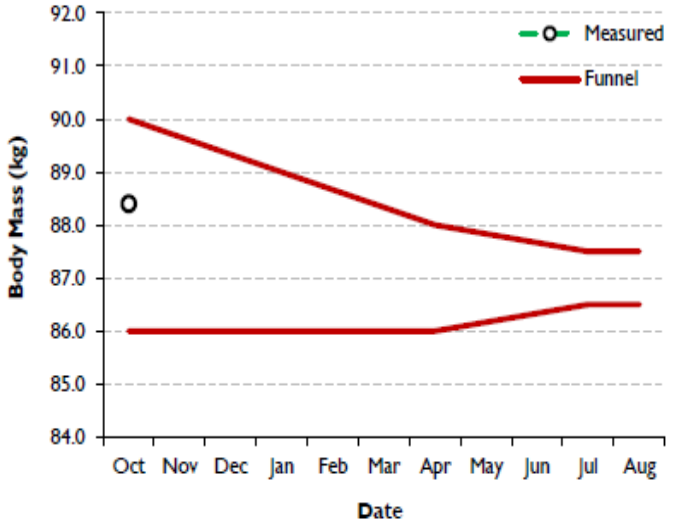
Target Race Weight: kg
Measured Weight: kg

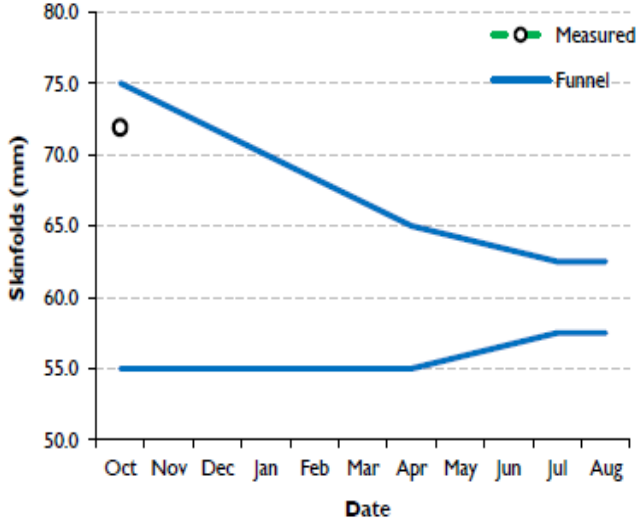


Target Skinfolds: mm
Measured Skinfolds: mm



Performance Funnels





Heat Management

Preparation of Paralympic Athletes; Environmental Concerns and Heat Acclimation

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Keywords: spinal cord injury, paraplegia, tetraplegia, exercise, performance, heat, humidity

Training in the heat:

Athletes with a spinal cord injury (SCI) display impairments in skin blood flow and sweat responses below their lesion level. Therefore management of hydration strategy will need to be altered.

Athletes with an SCI demonstrate an absent or much reduced sweating capacity. The imbalance between rate of heat production and heat dissipation determines the magnitude of heat storage and increases in core temperature. Even in temperate (~20°C) conditions athletes with an SCI often obtain a higher peak core temperature and higher rate of change in core temperature compared to non-SCI athletes. Findings from submaximal endurance and intermittent exercise.

Athletes with tetraplegia are thus considered to be at a greater risk of heat injury when compared to athletes with paraplegia who, in turn, have a greater risk of heat injury when compared to able-bodied athletes.

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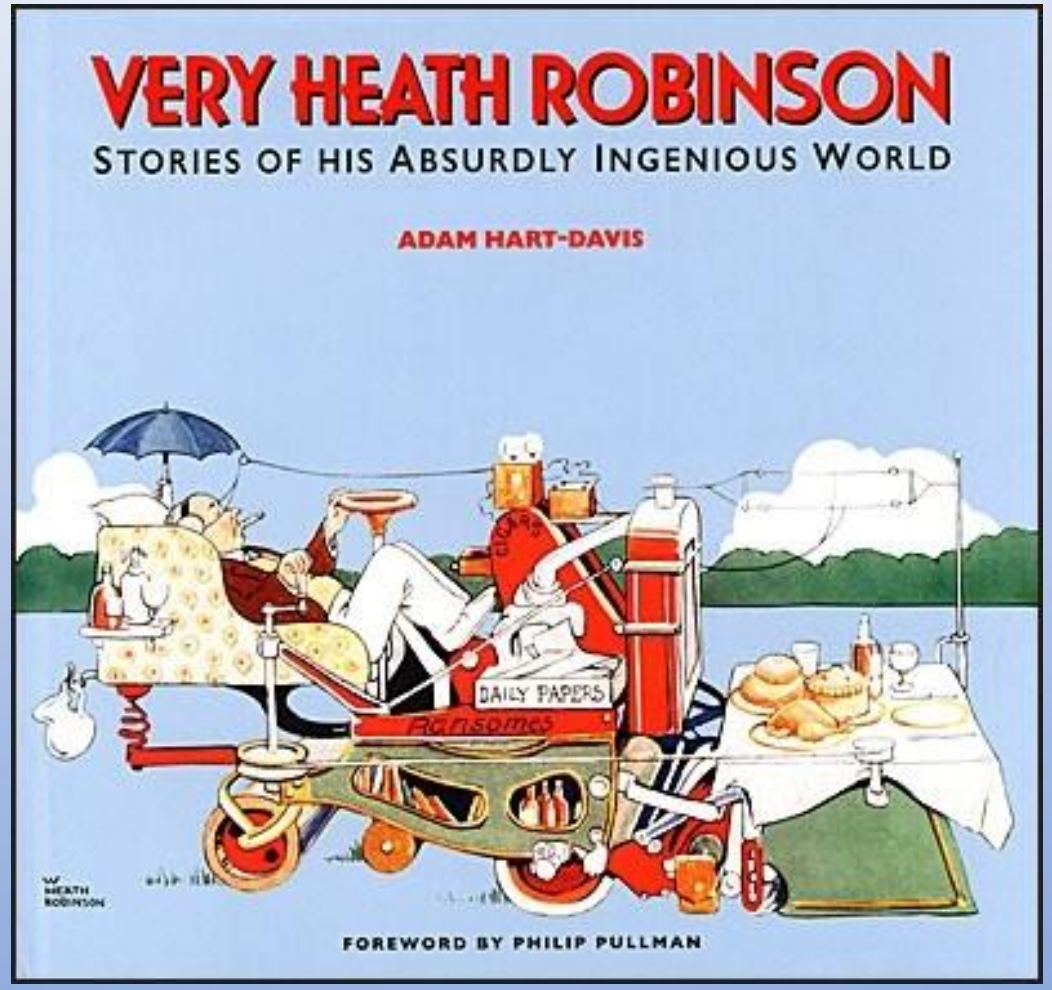
Seating



- Persistence
- Weight
- Creativity (doesn't have to be expensive)
- Repeatability
- Within the rules
- Collective thought process using the 'coaches eye' and other support staff expertise
- Keep a comprehensive record of how it develops from athlete and coach to refer back to.

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