Hydrotherapy & Recovery

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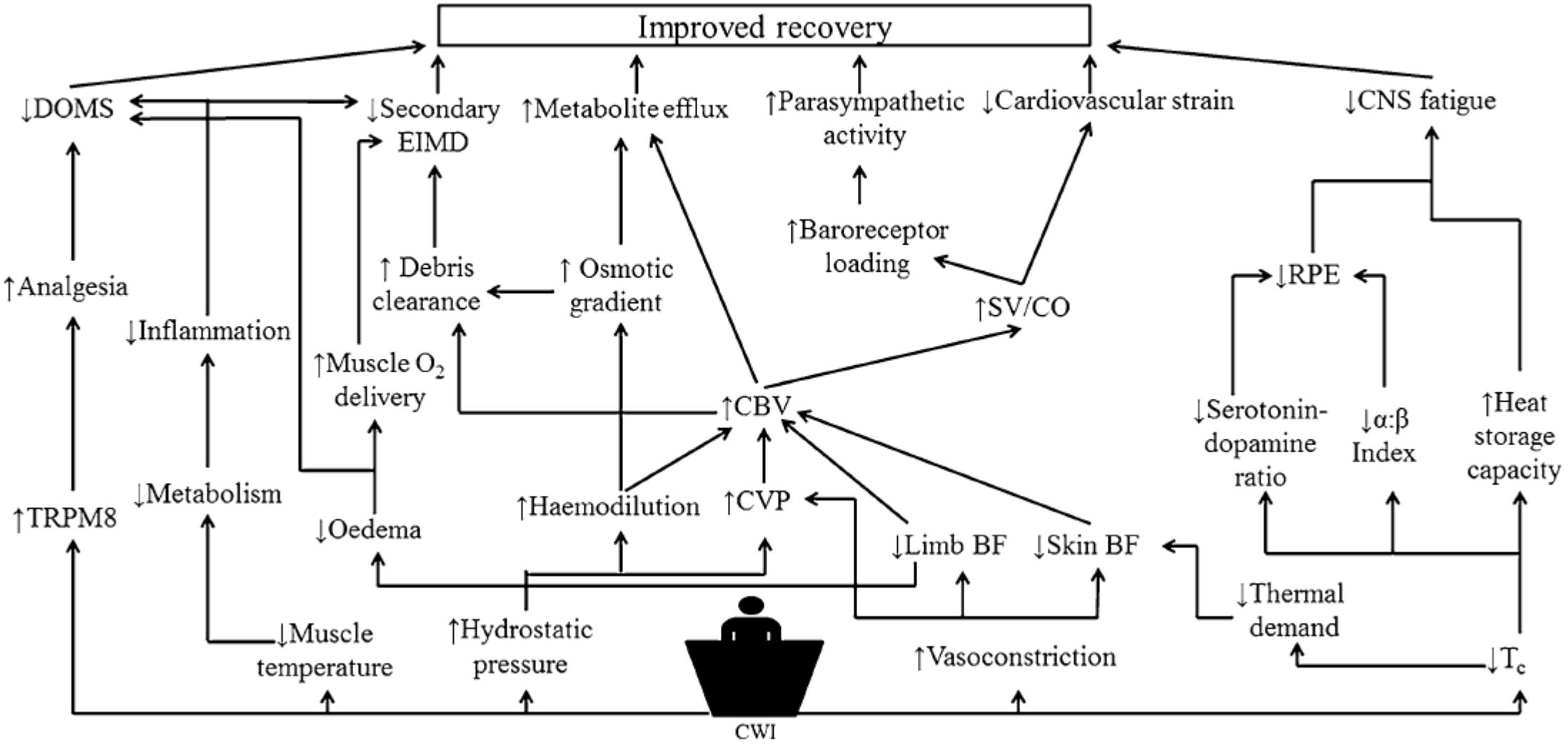
HYDROTHERAPY & RECOVERY

- What is it?
- What does it do?
- What works?
- What doesn't work?
- When to use it?
- When to avoid it?
- Considerations



HYDROTHERAPY – WHAT AND WHY?

- Popular form of recovery
- Immersion in water – cold vs. warm vs. contrast
- Temperature & pressure changes in blood flow ↓ post-exercise inflammation & muscle damage?
- "Flushing" – removal of muscle metabolites & acidity (e.g. lactate)?
- Reduces muscle soreness (DOMS)?
- Hasten "system" fatigue recovery
- Improve sleep
- Improve performance in hot environments

PROS

- ↓ Inflammation & muscle damage
- ↓ Muscle soreness (DOMS)
- ↑ Recovery on performance tests
  - Power / Strength
    - Stretch shortening cycle (jumping, sprinting)
  - Endurance
    - Inflammation, system recovery
    - Hot environments (acute recovery)
- ↑ Sleep quality
- ↑ Recovery of autonomic nervous system – “rest & digest”
- Chronic recovery (12-72 hours)

CONS?

- Timing
- Impair acute (same day) performance?
  - Cooler muscle temperature
  - Impaired contractile function
  - Suppression of “fight/flight” response?
- Especially sprint/power events
- Impair adaptation to training?
  - Strength/power vs Endurance?
  - Adaptation vs Recovery & Performance

CONSIDERATIONS

- **Type of fatigue**
  - Peripheral (muscle) vs. Central (system)
- **Time frame between hydrotherapy and next performance**
  - Acute vs. Chronic recovery
    - Acutely detrimental?
    - Chronically (12-72 hours) beneficial
- **Body composition**
  - ↓ body fat = ↓ skin, muscle & core temperatures
  - ↑ muscle mass = longer to cool?
- **Age**
  - ↓ time required for younger athletes?
- **Gender**
  - Body composition and body size differences
- **Water temperature**
  - 15°C better than 5°C?
    - ↑ CMJ, ↓ muscle damage markers, ↓ muscle soreness
- **Depth of immersion**
- **Duration of immersion**
- **Environment**
  - Hot vs. Cool climates

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