

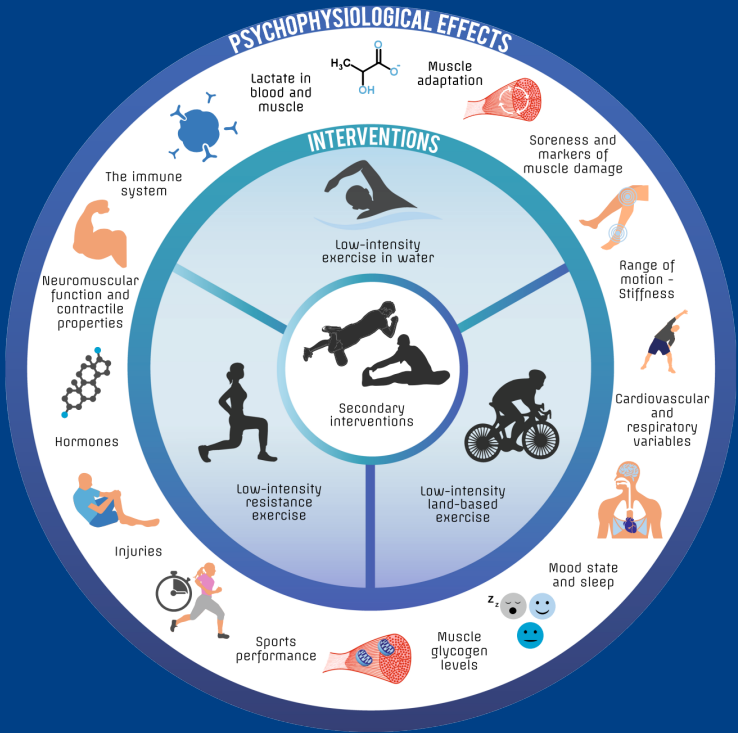
Active Recovery & Swim Downs



Aim: To return all bodily systems to pre-exercise levels following intensive swimming

Effects of Active Recovery

- Elevated Blood Circulation
- Fast Oxygen Delivery
- Elevated Transition of Lactate from Muscles to the Blood
- Faster Lactate Clearance / Shuttling
- Faster Replenishment of Energy Sources in Muscles
- Increased Muscle Contraction Ability



Van Hooren and Peake (2018)

Recovery Considerations:

Recovery of blood lactate may be different to conditions in the muscle

Muscle lactate begins to drop as soon as exercise ends, and blood lactate accumulates for several minutes after

Phosphocreatine resynthesis

PCr resynthesis usually takes ~6 minutes. 75% or so will occur in the first 2 minutes.

Hormonal imbalances

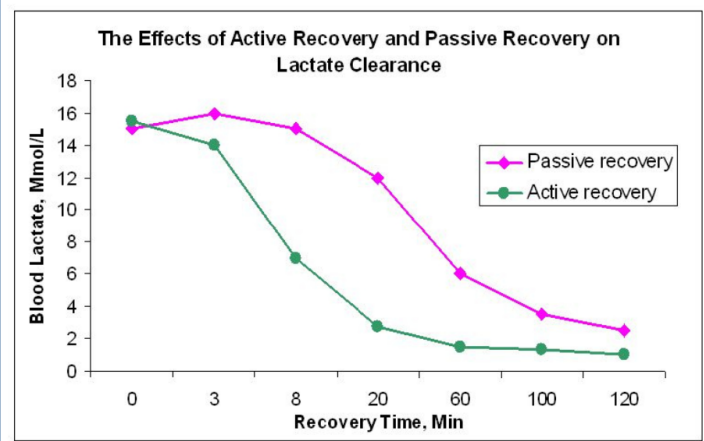
Hormone Imbalance may take several hours to return to normal

Muscle damage and repair

Muscle Damage may take several days to repair

There may be a difference between blood lactate and muscle pH (far more important)

(Peyrebrune 2006)



Recommendations

Volume

Butterfly		
	Men	Women
50m - 200m	1200m - 1400m	800m - 1000m

Backstroke		
	Men	Women
50m	1000m - 1200m	800m - 1000m
100m - 200m	1300m - 1500m	1000m - 1200m

Breaststroke		
	Men	Women
50m	800m - 1000m	800m - 1000m
100m - 200m	1200m - 1400m	1000m - 1200m

Freestyle		
	Men	Women
50m	1000m - 1200m	800m - 1000m
100m - 400m	1300m - 1500m	1000m - 1200m
800m - 1500m	1000m - 1200m	800m - 1000m

(Vescovi et al 2011)

Intensity

(Average)

Sprinters

50 - 55% of Maximum 100m Swimming Velocity

Mid - Distance

55 - 60% of Maximum 100m Swimming Velocity

Distance

60 - 65% of Maximum 100m Swimming Velocity

Further Individual Considerations

Blood Lactate
<2mmol/l

Heart Rate
<100 BPM

Do an Additional 100m for every 1 mmol/l in excess of 2 mmol/l