

Recovery Strategies: 24/04/2020

Basic Principle:

- Recover from stress
- Promote recovery
- improve performance

What an athlete should do?

- Athletes should maintain a diary
- share with their medicos and coaches
- symptoms should be marked on a scale of 10

4 critical markers:

- HR
- Quality of sleep
- Daily fatigue monitoring
- Morning weight

Types of fatigue:

- metabolic (lactate accumulation leading to muscle soreness)
- neural (peripheral/central; lack of neurotransmitters)
- psychological (emotional and social stress)
- environmental (hot- increase sweat, or cold climate, pollution- decrease breathing capacity, high altitude sickness- oxygen utilisation decreases)
- Overtraining

Overtraining Syndrome:

- Imposes high risk factors
- psychological , eating behaviour alterations

Road to Recovery:

Designing a recovery strategy:

- done by the coach
- various challenges as need of each player is different
- 3 major areas :

A. NUTRITION:

- Fluid and fuel
- Prevent dehydration (60-70% is water in the body)
- 2% bodyweight loss reduce aerobic output
- 6% reduction of body weight is dangerous and can be fatal too
- so look for the signs of dehydration
- glycogen demand needs to be fulfilled , sports drinks
- DO NOT TRAIN IN EMPTY STOMACH to prevent tissue level injuries
- supplement is not a necessity

B. PHYSIOTHERAPY:

- Passive rest: like SLEEP is most important, 6-7 hrs of sleep, body repair happens while sleeping , natural healing process improves, too much sleep is also detrimental as it slows down CNS
- Active rest: starts at end of training, light jog, walk, swimming, cycling(physiological recovery); light jostling/shaking of muscle groups (neural recovery); cross training (non-habitual activity, volley ball)
- Rest day (atleast one day per week, for physical and psychological and inter-personal recovery)
- Hydrotherapy: Spa/pool/steam rooms/ cold pools/ contrast protocol; underwater massage using jet and spa; Shower, spa (40 deg) 3 mins, cold (10-15 deg) 30-60 sec; 3-5 sets.
- Sports Massage: physical and psychological relaxation; only when indicated.
- Acupuncture/Acupressure: as an adjunct to sports massage, done by qualified professional only

C. PSYCHOLOGICAL SKILLS:

- Debriefing: helps both coach and athlete like a pep talk, simple motivational words helps in recovery, positive feedback, setting realistic goals

D. EMOTIONAL recovery: contingency planning , coaches prepare athletes; watch videos/comedy shows/ visit fun park, basically for mood-lifting and distraction from the 4 walls

- Mental toughness training: positive self talk, pep talk

E. RELAXATION TECHNIQUES:

- Music

- Meditation

- breathing exercises

- visualisation

- Jacobson's relaxation techniques

: Q/A: What is adrenal fatigue? Adrenal gland has different hormones and the imbalance of flight and fright reaction to maintain homeostasis is called adrenal fatigue. Hormone correction is required.

Q/A: Lactic acid threshold to cause fatigue? 8.24 mMol/L in Indian boxers

Q/A: Rapid weight loss harms? Very harmful. Not a good practice. Target should be to reduce 0.5 kg per week.

Q/A: Empty stomach training?

Not good, eat something (small snack) as you wake up. 40-50 mins before you start warmup

Q/A: Psychological fatigue management before match?

Music/video/read/ park/ but not the whole night. Proper sleep. Positive self talk or with the coach.

Q/A: What should be the cool down after strength training? Foam roller

Q/A: Detrimental effects of excessive sleep? Impairs reaction time, muscles are sluggish and stiff, decreases motor quality, decreased endurance capacity

Q/A: If psychologically a boxer feels ok in training empty stomach? Do not encourage, educate the boxer with evidences and give time to adapt.

Q/A: Boxer death in the ring, cause? Fatigue can be cause, or Cardio-vascular. History is needed.

Q/A: After 3-4 hrs of training, how can he recover as he has to attend school immediately after?

Good dinner a night before, can have home made drink for recovery (1:3, protein : carbohydrate)

Q/A: Resting HR? RHR from carotid artery is the best way to record. Special recovery sensors are available which can be applied on the chest.

Q/A: After cool down how much meditation can be done? Not time specific. Meditation brings mind and body back to resting level. Focus from external environment to internal environment. Depends upon result.

Q/A: Fast recovery after weighing in? Good glycemic index food should be taken. And hydrate well.