OVERTRAINING AND BURNOUT

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OVERTRAINING V. BURNOUT

- Physiological
  - Internally driven (self-directed)
  - Mature athlete
  - Motivation high (too high?)

- Psychological
  - Externally driven (coach, parents)
  - Younger athlete (adolescent)
  - Motivation lost
SPORT IN CONTEXT

• 4 Levels of Sport
• Fundamental
• Fitness
• Performance
• Pre-hab and Rehab
4 LEVELS OF SPORT

- **Fundamental**
  - Growth and development
  - Talent ID, development, management
  - Movement patterns
  - Whole-phase-whole learning
  - Social skills

- **Fitness**
  - Aerobic paradigm
  - *Linear actions* v multi-lateral development
  - Periodic exercise

“All things only grow”
4 LEVELS OF SPORT

• **Performance**…
  • “Not a natural or healthy thing to do to the body”
  • Competition
  • Anatomical adaptation
  • Specificity of training
  • Goal oriented
  • Time critical training component
  • Cumulative damage of participation
4 LEVELS OF SPORT

- Pre-hab...
  - Postural, core & dynamic stability
  - Movements not muscles
  - Multilateral development
  - Technical development
  - **ALLOWS** for growth and development

- Rehab...
  - Restore ill or injured to “normal” state
  - Strength, flexibility, endurance, ABC’s
  - Repair weak/broken “links”
  - Muscles over movements
  - “Return to Play” concerns/testing

**Neuromuscular education v. neuromuscular re-education**

- DELAYS growth and development
TRAINING THEORY

General Adaptation Syndrome
G.A.S

C.R.A.S.H.*

*Circumstances resulting after stuff happens

Yakolev’s Model

Y
Adaptation

X
Stress
Rest
OVERTRAINING (OT)

- Too much/too often
- ↓ performance
- Individual sports
- Highly (overly?) motivated
  - Lazy people don’t OT
- Precursor to clinical depression
  - Over-trained on life

4 Categories of OT
- Physiological (body pH balance)
- Psychological (motivation)
- Biomechanical (overuse/misuse)
- Immunological (illness)
OVERTRAINING SYNDROMES

- Over reaching
  - 2-3 days then rebound
- Overtraining
  - Weeks to months
- Illness/injury
  - Psychologic and physical
- Chronic Fatigue Syndrome
  - Potentially lifelong
OVERTRAINING

- Role of defeat
- ↑ Symptoms
- Self depreciation
- Questioning of self
- Stress of failed expectations
SELF-LEADERSHIP

• Personal responsibility
• Goal orientation
• Personal improvement
• Developing balance

• Consider maturity level...
BURNOUT

• Psychological state
• Do not want to do “it” anymore
• Younger athletes (generally)
• Externally motivated
BURNOUT

- Only highly motivated athletes → burnout
- Self determination → self-control
- Youth ↑ extrinsic motivation
- For youth training in self-care and self-awareness
Critical to design programs that have appropriate challenges for current skill level. Difficult problem for entry level “ball sports” because age, maturity, gender, background, parental support may complicate process.

DANISH’S SKILL V. CHALLENGE

• Skill > challenge → boredom
• NOT fun anymore → early departure

• Challenge > skill → frustration
• NOT fun anymore → early departure
Attempts to find individual biochemical markers (i.e. – cortisol, mineral and vitamin deficiencies) have proven fruitless. The body needs to be seen as more of a symphony as opposed to a solo street musician.
PREVENTION OF OVERTRAINING

- Monitoring program
- Sleep patterns
- AM heart rate
- Lie to stand heart rate
  - >10-15 bpm
- Urine morning pH
  - Acidic urine pH = basic body
PREVENTION OF OVERTRAINING

• Physical Testing
• Stage Control Tests
• Vertical jump
• Standing long jump
• 30 second push-ups

Once a **baseline** is established these tests are **simple and effective** for registering **current state of fitness**
PREVENTION OF OVERTRAINING

- **Children**
  - Don’t fatigue the system
    - > 65% efforts
  - What does that mean?
    - **Hands on knees**
    - Activity not “fun”
    - Laughter stops
PREVENTION OF OVERTRAINING

- **Psychological qualities** tend to show first
- **Visual** presentation
  - Demeanor
  - Movements
  - Motivation
  - Behaviors
- Pencil and paper testing (POMS, RestQ 76)
PREVENTION OF OVERTRAINING

- **Profile of Mood States (POMS)** (McNair, 1971)
  - 65 questions
    - Tension
    - Depression
    - Anger
    - Vigor
    - Fatigue
    - Confusion

Note how elite athlete (solid line) is better able to “manage” stress of long season.
PREVENTION OF OVERTRAINING

- Psychological qualities show first
- Observation
- Pencil and paper testing
  - For documentation

- RestQ 76 – 77 questions
  - 7-point Likert Scale.....0-never....7-always
    - “I watch TV…”
    - “I was tired from work…”
    - “I make important decisions…”
    - “I deal effectively with teammates’ problems”
  - 19 categories...general stress, emotional stress, success, emotional stress, being in shape, self-regulation, etc.
PREVENTION OF BURNOUT

- Necessity of programmed development
- Benchmarks for stage development
- Growth and development v. training and
• Sensible training makes both conditions preventable
• Observation is a valuable tool
• Consider age and experience level
• Motivation is a key factor
• Balance in life is key...yet another example

Best regards,
Russ Ebbets, DC
REFERENCES AND FURTHER STUDY


• Brianmac.co.uk/poms.htm for Profile of Mood States (POMS) testing on his site. Excellent resource for endurance related sports training theory and methods.

