

MONITORING TRAINING LOADS IN SOCCER

This article is directed towards coaches and technical staff of grassroots level soccer to be able to gain an understanding of, and then implement basic monitoring practices in their own environment.

SOCCER DEMANDS

Physical demands in soccer are increasing, as is the amount of games scheduled. This affects the way players are trained at all levels of the game. Monitoring training effectively may help optimize physical and technical development as well as lowering risk of injury and sickness when:

- Increasingly busy schedules mean high-intensity sessions are separated by little recovery.
- Absence of days for physical and psychological regeneration and the expectation of high work-rate from players can have negative consequences.
- Accumulation of fatigue over days and weeks might reduce ability to exercise and increase susceptibility to sickness and injury.

WHY MONITOR TRAINING LOAD?

The use of monitoring techniques can have several benefits in the soccer environment. Consistent recording of the duration, content and intensity of training sessions and games can be carried out for both the team and individual players. Information collected can be used to ensure varied training prescription with high and low intensity days with periods for promoting fitness as well as recovery. As a result, the likelihood of overtraining and other negative consequences is reduced.

There are different types of 'load' a player experiences in soccer. Understanding contributors to training load and ways to measure this can help in planning training sessions:

SESSION CONTENT

DURATION

(LENGTH OF SESSION)

VOLUME

(NUMBER OF SESSIONS COMPLETED)

INTENSITY

(PHYSICAL DIFFICULTY)

PHYSIOLOGICAL RESPONSES

(E.G. HEART RATE)

RUNNING OUTPUTS

(E.G. DISTANCE COVERED)

SUBJECTIVE INTENSITY

(E.G. SELF-REPORTED INTENSITY, SUCH AS RPE)





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Factors influencing exercise intensity

Many factors influence individual responses to exercise and should also be considered when planning training intensity:

- · Field size
- · Number of players per team
- Coach encouragement
- Age
- Fitness levels
- Level of play
- · Weather and altitude

Rate of Perceived Exertion (RPE)

- RPE is popular for measuring training load Seen as a global measure of exercise intensity.
- Can be used to measure load in any sport.
- Easy to use and requires no equipment or cost.
- Thirty minutes after a session, a player may be asked 'How was your workout'?
- Players provide an RPE score of how hard the session was on the O-10 scale (Figure 1).
- Session Training Load = RPE x Session Duration (minutes).

Points to consider when using RPE

- Can change depending on aims and content of a session.
- Accounts for situational, physiological and psychological factors.
- Can help with varying 'hard' and 'easy' sessions to reduce monotony of training.
- Ensures variation in training load (such as in pre-season, and weekly cycle before a game).
- Can take into account weekly activities and sports undertaken other than soccer.
- Subjective reporting may vary with age and experience.
- More experience gives appreciation for range of intensities and what is 'maximal' effort.

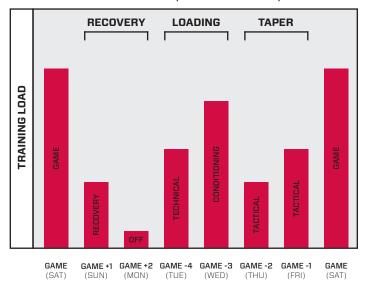
FIGURE 1:

RPE SCALE			
0	NOTHING AT ALL		
1	VERY LIGHT		
2	FAIRLY LIGHT		
3	MODERATE		
4	SOMEWHAT HARD		
5	HARD		
6			
7	VERY HARD		
8			
9			
10	VERY, VERY HARD (MAXIMAL)		



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FIGURE 2: ONE-GAME WEEK (2 DAY RECOVERY)



	INTENSITY	AIMS	AREAS
Game	Highest intensity	Reference to plan training	
G +1	Recovery	Low intensity activity, stretch, nutrition	
G+2	OFF	Recovery	
G -4	Moderate Intensity	Technical-tactical	Small spaces
G-3	High Intensity	Conditioning	Large spaces
G-2	Moderate Intensity	Tactical	Large Spaces
G -1	Low Intensity	Tactical	Limit speed work
GAME			

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