



## **FATIGUE DURING A SOCCER MATCH**

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Fatigue, or rather not optimal physical performance, may develop during high-level soccer games. According to time-motion analysis and performance measures during match-play fatigue seems to occur at different stages in a game: 1) after short-term intense periods in both halves, 2) in the initial phase of the second half, and 3) towards the end of the game.

Temporary fatigue after intense exercise periods in a game appears not to be directly linked to muscle glycogen levels, lactate accumulation, acidity or creatine phosphate breakdown. Instead it may be related to disturbances in muscle ion homeostasis and an impaired excitation of the sarcolemma.

Soccer players' ability to perform maximally is inhibited in the initial phase of the second half, which may be due to a reduced muscle temperature compared to the end of the first half. Thus, when players perform low intensity activities in the interval between the two halves, both muscle temperature and performance are preserved. Several studies have provided evidence that fatigue occurs towards the end of a game, which may be caused by low glycogen levels in a significant number of individual muscle fibres. In hot and humid environment, also dehydration and a reduced cerebral function may become a main factor in the deteriorated performance levels. In conclusion, fatigue, or impair performance, in soccer occurs during various phase a game and different physiological mechanisms seem to operate in the different periods of a game.