



ETM-Sport

3 questions for...



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1) What are the particularities of an athlete's heart?

The combination of heart and sport has been a topic for over a century. The benefits and risks that are involved in relation to sport have been debated and the ECG has been a constant focus of these discussions. We know with certainty that regular endurance sports activities lead to a physiological increase of the heart's size, accompanied by a regular, eccentric increase in size of all heart chambers, and to a thickening especially of the membranes of the heart chambers accompanied by improved cardiac functions. As a result, ECG alterations can be observed, which are due to this physiological adaptation. However, these alterations can be misinterpreted as pathological changes. During several consensus conferences, recommendations on the normal ECG of athletes and on clearly pathologic findings (cardiomyopathy, channelopathy) have been established.

2) Which part can SCHILLER's ETM Sport Interpretation play?

In co-operation with sports physicians, SCHILLER has programmed the interpretation of athletes' ECGs based on the Seattle criteria. Recent studies¹ have shown that the PC-based interpretation of ECGs is superior to a purely visual analysis.

3) What are the advantages for the patient?

The PC-based analysis increases the validity of the interpretation of an athlete's ECG considerably. Thus, the sensitivity, specificity and predictive value of the ECG are improved sig-

¹ [Berge HM, et al.: Measurement method is important for interpretation of athlete's ECG.Br J Sports Med 2014,48:567-568](#)

[Berge HM et al.: Visual or computer-based measurements: Important for interpretation of athlete's ECG. Br J Sports Med. 2014,48 :761-767](#)

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nificantly, leading to fewer false-positive or false-negative diagnoses. For athletes, PC-analysed resting ECGs are more reliable than anamnesis and clinical diagnosis.

Therefore, a resting ECG is a standard part of any sports medical check-up. The PC-based diagnosis facilitates and improves the interpretation of ECGs; however, it does not replace an in-depth sports-cardiological training.

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