



## **Sudden Cardiac Arrest During Sports: How Can the Risk Be Reduced?** 250 of the world's leading specialists met in Berlin last weekend

**Berlin, December 11, 2014. Time and again, the topic of sudden cardiac death grabs the public's attention when football stars or other top athletes collapse from cardiac arrest in front of the live cameras. This important issue has long been a concern of heart specialists, for cardiac arrest often hits young, apparently healthy and athletic people out of the blue. Doctors talk about ventricular fibrillation (VF) in these cases, while another heart rhythm disorder involving the chambers of the heart is ventricular tachycardia (VT), in which the ventricles beat regularly, but much too rapidly. Last weekend, the world's leading specialists in this field met in Berlin at the 6th EURO VT/VF Meeting to share their experiences and discuss new approaches to diagnosis and treatment.**

One focus of the high-powered symposium this year was sports and heart arrhythmias. In the first presentation, Professor Matthias Antz of Oldenburg (Germany) pointed out major differences in the ECG assessment of athletes and non-athletes – a fact that not all doctors are aware of and that can therefore lead to confusion. Just four hours of training a week is already regarded as competitive sport and that's a level that many amateur sports enthusiasts also reach. Regular intensive training not only leads to a significantly slower heartbeat, but, because the heart is strengthened, also to changes in the curves of the electrocardiogram, which can sometimes return to normal during exercise. Many ECGs that appear unusual at first glance are therefore totally normal for athletes, according to Antz. But there are clear warning signs for heart problems that have to be clarified, he explained. A thorough ECG examination is therefore important before commencing any intensive training, so that suitable precautionary measures can be taken if necessary, Antz concluded.

How successful the widespread introduction of a routine ECG for high-performance athletes can be in the fight against sudden cardiac arrest was demonstrated by Professor Gaetano Thiene of the University of Padua (Italy): Of almost 34.000 athletes who were examined, 621 (1.8%) were ruled out from taking part in competitive sport on the basis of cardiovascular problems identified in an ECG that had not been picked up on in their day-to-day life. Since the 1980s, Italian doctors have thus been able to reduce the risk of sudden cardiac death among young sportspeople by almost 90 per cent to a figure below the risk faced by the general population!

A wide-ranging all-clear was issued in Berlin for sports enthusiasts with an implantable cardioverter defibrillator (ICD): based on the latest findings, the previous general prohibition on intensive sporting activity is generally not justified, declared Doctor Carsten Israel from Bielefeld (Germany). These patients enjoyed good protection thanks to the device and would therefore not face any increased risk participating in sports such as marathon running or cycling, Israel confirmed. But there were sports that compromised the ICD device or the electrodes running through the veins, and those who wanted to play those sports should seek advice beforehand.

### **The conference**

The EURO VT/VF Meeting is an extraordinary scientific congress that was launched by the pioneer of catheter ablation, Professor Karl-Heinz Kuck of Hamburg (Germany), who was looking to bring together the experience and research of the world's leading specialists in a think tank and thus to produce the best results as quickly and effectively as possible. Against that background, Kuck teamed up with his colleagues Professor Gerhard Hindricks (Leipzig), Professor Paolo Della Bella (Milan) and Professor Pierre Jais (Bordeaux) to create an independent forum for regular exchanges between the world's leading heart rhythm experts. More information: [www.euro-vtvpf.eu](http://www.euro-vtvpf.eu)