

Aus der Fachliteratur

Exercise and Heart Disease

Der plötzliche Herztod im Sport: Eine wichtige Übersichtsarbeit, die die sportärztliche Vorsorgeuntersuchung fordert:

Sudden cardiac death in young athletes: Chandra,N. et al., JACC 61,2013:1027-1040

Wichtig für jeden Sportarzt !!!

und dazu:

Practical management of sudden cardiac arrest on the football field

[Kramer](#) E.B. et al. Brit MJ Sports Med 46,2013:1094 ff. **Abstract**

Sudden cardiac arrest (SCA) remains a tragic occurrence on the football field. The limits of preparticipation cardiovascular screening make it compulsory that prearranged emergency medical services be available at all football matches to immediately respond to any collapsed player. Management of SCA involves prompt recognition, immediate cardiopulmonary resuscitation (CPR) and early defibrillation. Any football player who collapses without contact with another player or obstacle should be regarded as being in SCA until proven otherwise. An automated external defibrillator (AED), or manual defibrillator if an AED is not available, should be immediately accessible on the field during competitions. This study presents guidelines for a practical and systematic approach to the management of SCA on the football field.

Open access!.

Consensus Statement on Concussion in Sport

The 4th International Conference on Concussion in Sport Held in Zurich, November 2012

Paul McCrory, Willem H Meeuwisse, et al. **Br J Sports Med. 2013;47(5):250-258. Preamble.** This paper is a revision and update of the recommendations developed following the 1st (Vienna 2001), 2nd (Prague 2004) and 3rd (Zurich 2008) International Consensus Conferences on Concussion in Sport and is based on the deliberations at the 4th International Conference on Concussion in Sport held in Zurich, November 2012.^[1-3]

From Athletes and Arrhythmias to Hypertrophic Cardiomyopathy and Congenital Heart Disease Abbas Zaidi, Sanjay Sharma Future Cardiol. 2013;9(1):119-

136. Abstract The beneficial effects of regular physical activity on cardiovascular health are well established, with convincing evidence of improvements in blood pressure, lipid profile and overall mortality. Conversely, individuals with pre-existing congenital, inherited or acquired heart conditions may experience functional cardiac deterioration or sudden death during even moderate exertion. Exclusion from high-level sporting activity may be mandated in some cases, and pre-participation screening of competitive athletes plays an important role in the identification of such individuals. The issue of screening is complicated by the fact that physiological cardiovascular adaptation in healthy athletes, including modest left ventricular hypertrophy and biventricular cavity dilatation, may create a diagnostic overlap with pathological conditions such as hypertrophic cardiomyopathy. Furthermore, much interest has focused recently on the possibility of

irreversible cardiac remodeling in a proportion of veteran endurance athletes, with the potential for arrhythmogenesis and adverse cardiac events.

Frontiers in Physiology, published: 06 March 2013 doi: 10.3389/fphys.2013.00011

Genetic background influences adaptation to cardiac hypertrophy and Ca²⁺ handling in gene expression Steve B. Waters ^{1†}, Douglass

These data suggest that the two strain of mice regulate Ca²⁺ homeostasis via different mechanisms and may be useful in developing personalized therapies in human patients.

Keywords: mouse, heart, hypertrophy, Ca²⁺-handling, gene expression, hemodynamics

Physical Activity and Cardiovascular Disease in African Americans in ARIC MSSE, Dec., 2012 Bell, Elizabeth J. et al. Abstract. Purpose: Although there is substantial evidence that physical activity reduces a person's risk of cardiovascular disease (CVD), few of these studies have included African Americans. The studies that have included African Americans offer inconclusive evidence on the association and none studied heart failure separately. We used data from the Atherosclerosis Risk in Communities study cohort to examine, in African Americans, the association of physical activity with the incidence of CVD and its major components - stroke, heart failure, and coronary heart disease.

Results: After adjustment for potential confounders, physical activity was inversely related to CVD, heart failure, and coronary heart disease incidence in both races (p-values for trend <.0001), and with stroke in African Americans. Hazard ratios (95% confidence intervals) for CVD for each higher physical activity category were similar by race: 1.0, 0.65 (0.56, 0.75), and 0.59 (0.49, 0.71) for African Americans and 1.0, 0.74 (0.66, 0.83), and 0.67 (0.59, 0.75) for Caucasians (p-value for interaction = 0.38). **Conclusions:** Our findings reinforce recommendations that regular physical activity is important for CVD risk reduction in African Americans as well as Caucasians and support the idea that some physical activity is better than none.

Primary Prevention of Cardiovascular Disease with a Mediterranean Diet

Ramón Estruch, M.D., et al. N Engl J Med 2013. DOI: 10.1056/NEJMoa1200303

Background

Observational cohort studies and a secondary prevention trial have shown an inverse association between adherence to the Mediterranean diet and cardiovascular risk. We conducted a randomized trial of this diet pattern for the primary prevention of cardiovascular event

A total of 7447 persons were enrolled (age range, 55 to 80 years); 57% were women.

The two Mediterranean-diet groups had good adherence to the intervention, according to self-reported intake and biomarker analyses. A primary end-point event occurred in 288 participants. The multivariable-adjusted hazard ratios were 0.70 (95% confidence interval [CI], 0.54 to 0.92) and 0.72 (95% CI, 0.54 to 0.96) for the group assigned to a Mediterranean diet with extra-virgin olive oil (96 events) and the group assigned to a Mediterranean diet with nuts (83 events), respectively, versus the control group (109 events). No diet-related adverse effects were reported.

Conclusions Among persons at high cardiovascular risk, a Mediterranean diet supplemented with extra-virgin olive oil or nuts reduced the incidence of major cardiovascular events.

Management of myopericarditis Expert Review of Cardiovascular Therapy , 03/14/2013 Clinical Article Vol 11, 2013:193-201

Imazio M et al. - Management is similar to that reported for pericarditis, generally with a reduction of empiric anti-inflammatory doses mainly aimed at the control of symptoms. Rest and avoidance of physical activity beyond normal sedentary activities has been recommended for 6 months, is

recommended as for myocarditis. At present, there is no evidence that troponin elevation confers worse prognosis in patients with preserved left ventricular function. Usually complete remission is seen in 3-6 months. Myopericarditis is a primarily pericardial inflammatory syndrome occurring when clinical diagnostic criteria for pericarditis are satisfied and concurrent mild myocardial involvement is documented by elevation of biomarkers of myocardial damage (i.e., increased troponins). Limited clinical data on the causes of myopericarditis suggest that viral infections are among the most common causes in developed countries.

Association of Smoking Cessation and Weight Change With Cardiovascular Disease Among Adults With and Without Diabetes

Carole Clair, et al. **Conclusions and Relevance** In this community-based cohort, smoking cessation was associated with a lower risk of CVD events among participants without diabetes, and weight gain that occurred following smoking cessation did not modify this association. This supports a net cardiovascular benefit of smoking cessation, despite subsequent weight gain.

Sudden death and physical exercise: timely diagnosis of congenital anomalies of the coronary arteries with the new 320-slide multi-detector computed tomography

- [Carlo Gaudio](#), [Francesco Pelliccia](#), [Antonio Pelliccia](#) March.2013 Abstract

Congenital abnormalities of the coronary arteries here described are an uncommon form of structural heart disease. Nevertheless, they deserve attention because may cause chest pain and, in some cases, sudden cardiac death even during exercise. Traditional angiography has limitations due to its projectional and invasive nature. The recent development of the 320-slide multi-detector computer tomography with low radiation exposure has the potential to modify the current diagnostic work-up, as it allows even in young people a timely identification of clinical significant coronary anomalies minimizing the risks related to radiation exposure.

Für alle die im Fußball, Rugby und Boxen arbeiten

Consensus statement on concussion in sport: the 4th International Conference on Concussion in Sport held in Zurich, November 2012 Paul McCrory, *Br J Sports Med* 2013;47:250-258doi:10.1136/bjsports-2013-092313 Open access sports medicine journal

Long-term quercetin supplementation reduces lipid peroxidation but does not improve performance in endurance runners

Conclusion: The findings obtained indicate that there is a relationship between quercetin supplementation and the statistically significant decreasing trend in MDA levels following 6 weeks of supplementation and training. This evidence suggests that quercetin can reduce oxidative stress (lipid peroxidation). However, performance improvements were not significant (as measured by VO₂peak, running economy, heart rate, and RPE).

Statin treatment and increased fitness The Lancet, **Volume 381,**
Issue 9864, Pages 394 - 399, 2013 Interactive effects of fitness and statin treatment

on mortality risk in veterans with dyslipidaemia: a cohort study **Peter F**

Kokkinos I Interpretation Statin treatment and increased fitness are independently associated

with low mortality among dyslipidaemic individuals. The combination of statin treatment and increased fitness resulted in substantially lower mortality risk than either alone, reinforcing the importance of physical activity for individuals with dyslipidaemia.