

How to Practice Sports Cardiology

A Cardiology Perspective



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KEYWORDS

- Athlete • Cardiac adaptation • Sports medicine • Sudden cardiac death
- Sports cardiology • Cardiac testing

KEY POINTS

- Sports cardiology is a quintessential “patient-centered” discipline.
- Athletes are unique cardiovascular (CV) patients, distinct from the general population from physiologic and medical perspectives.
- Multiple athlete “gray zones” exist, beyond the usual echocardiographic chamber size and wall thickness.
- There exist overlaps between sports cardiology care rendered by a primary care sports physician and a sports cardiologist. Each provider must recognize their unique roles in athlete CV care, and be mindful of the boundaries of their scope of practice.
- Systematic approach to evaluation of athletes is recommended, taking into consideration sports-specific CV demands, CV adaptations and their appearance on cardiac testing, any existing or potential interaction of the heart with the internal and external sports environment, CV risks, and prevalence of use of performance-enhancing agents and rules for drug testing.

INTRODUCTION

When the legendary courier Pheidippides (530–490 BC) collapsed and died after running 25 miles from Marathon to Athens to announce a Greek victory over Persia,¹ bystanders were unaware they had witnessed the first recorded incident of exercise-associated sudden cardiac death (SCD). Clinician fascination with such events began that day, and persists to this day. Thus, it can be said that the practice of sports cardiology began with that first collapse. However, it has not been until the past 10 to 15 years that sports cardiology has come into its own as a discipline. Recently, the

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American College of Cardiology² and the European Society of Cardiology³ have provided a rationale for the specialty of sports cardiology, described what team physicians and cardiologists “need to know” to practice it, and laid the foundation for its development throughout the United States and Europe. Although the European Society of Cardiology has proposed a core curriculum in sports cardiology for sports physicians and cardiologists (Fig. 1),³ the American College of Cardiology has focused on cardiologists, noting that unique sports cardiology competencies overlap with existing cardiology learning pathways (Fig. 2).² When asymptomatic athletes present for CV screening, primary care sports medicine physicians and cardiologists use distinct sports cardiology competencies (see Fig. 2, left side). After an underlying disease is suspected or detected, competencies in cardiac disease and technology become operational (see Fig. 2, center and right side). Any cardiologist, either general or subspecialist, may be called on to evaluate athletes. Thus, it is essential that all cardiologists develop some basic proficiency in athlete CV care. This article outlines a systematic approach to the sports-specific CV care of any athlete (using soccer as an example), and reviews the knowledge base required to practice sports cardiology.

HOW TO PRACTICE SPORTS CARDIOLOGY: A PRACTICAL APPROACH TO THE SPORTS-SPECIFIC CARDIOVASCULAR CARE OF ANY ATHLETE

One of the challenges of sports cardiology is sifting through large amounts of published data on athletes, and organizing it in some fashion that allows comfortable

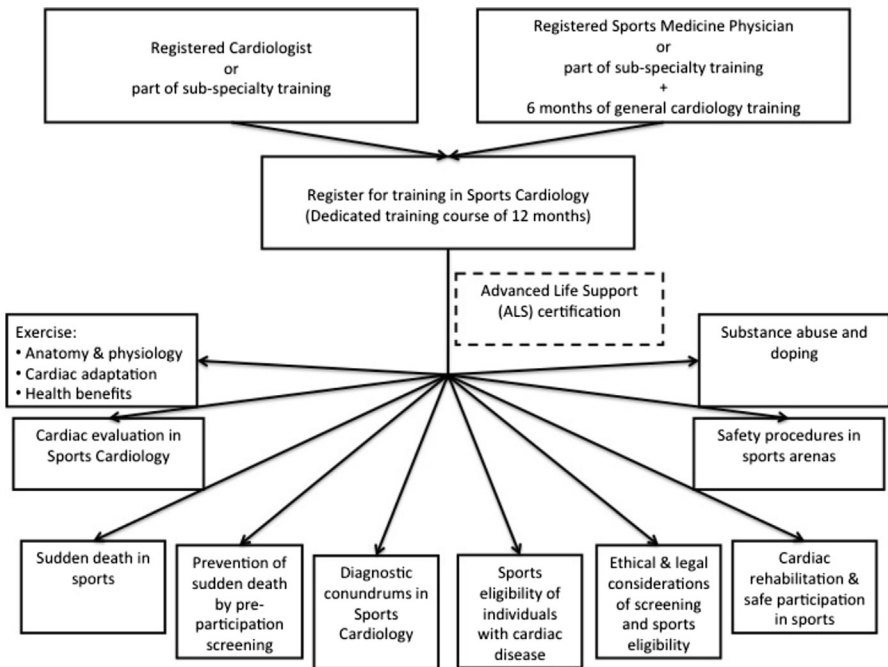


Fig. 1. European Society of Cardiology learning objectives in sports cardiology. (From Heidbuchel H, Papadakis M, Panhuyzen-Goedkoop N, et al. Position paper: proposal for a core curriculum for a European Sports Cardiology qualification. *Eur J Prev Cardiol* 2013;20:29; with permission.)

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