



Australasian College of Sport and Exercise Physicians (ACSEP) Position Statement on Pre-Participation Cardiac Evaluation in Young Athletes

1. The ACSEP re-affirms the well recognised position that for the vast majority of young individuals, regular exercise is not only safe but should be encouraged. However there is a very small proportion of the population with pre-existing cardiac pathology, where participation in competitive sport may increase their risk of a significant cardiac event.
2. The ACSEP acknowledges that there is an abundance of scientific literature on the topic of pre-participation cardiac evaluation of young (< 35 year old) athletes. It also acknowledges that while much of this work has been performed in overseas populations that are ethnically and socially different to those of Australasia, these studies have some relevance to our populations.
3. The ACSEP acknowledges a lack of data relating to the incidence of sudden cardiac death (SCD) in Australian and New Zealand athletes. In order to best ascertain the magnitude of SCD in the Australasian populations, including Aboriginal and Torres Strait Islanders, Maori and Pasifika, the ACSEP recommends the establishment of an Australasian Registry of Sudden Cardiac Death in Young People.
4. Furthermore there is a lack of Australian and New Zealand data on the effectiveness of the pre-participation cardiac evaluation (PCE) with respect to the identification of cardiac risk and prevention of SCD. Therefore all organisations with cardiac evaluation programs should be strongly encouraged to pool data in order to facilitate audit and further research.
5. At the present time, the ACSEP recommends the following:
 - a. All young elite¹ athletes should be evaluated for conditions linked to sudden cardiac death using a process consisting of history, examination and resting 12 lead ECG.
 - i. The history and physical exam should be as per the American Heart Association (AHA) Guidelines.
 - ii. So as to minimise false positives and negatives, the ECG should be interpreted by a physician with suitable expertise using the International Criteria for interpretation of the athlete's ECG.
 - iii. Such an evaluation should ideally take place every second year from age 16 to 25.
 - iv. Athletes entering an elite programme after age 25 should be evaluated upon entry into the programme.
 - b. An athlete should not be compelled to be undergo a PCE. However all athletes must be made aware of the reasons for evaluation and receive pre-evaluation information in a plain language summary. They should also be given appropriate opportunity to discuss the process with others, including, but not limited to, family and medical staff.
 - i. The evaluation process should also include appropriate counselling and support.

¹ For the purposes of this document the ACSEP defines 'elite' as athletes playing in professional and semi-professional competitions, the academy and talent pathway athletes that feed to such competitions, all government-funded athletes (e.g. state and national institute of sport athletes), and all other athletes where training for, and competing in, sport is their primary daily activity.



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- c. In the event that an athlete is diagnosed with a condition which has the potential to lead to SCD, the ACSEP does not support *mandatory* exclusion of the athlete from their chosen sport at a competitive level.
- Rather the ACSEP recommends that opinion is sought from specialists with expertise in sports cardiology. The opinion provided should take into account the clinical diagnosis and the risks of participation, with and without appropriate intervention (procedural or pharmaceutical), and thus enable a collaborative approach to the final decision regarding participation. The ACSEP acknowledges that a fully informed athlete has the right to pursue a course of action that is contrary to medical recommendations.
 - However, the athlete must be clearly informed of the possible implications of pursuing a course of action that is contrary to medical recommendations, and in the context of government-funded athletes, they should be made aware that positive findings may lead to withdrawal of funding if current best medical opinion recommends exclusion from competitive sport.
 - Athletes who wish to continue to play competitive sport despite expert medical opinion advising to the contrary should also be made aware that their chosen sport's governing body may still not permit them to compete, or be selected or drafted to compete, in that given sport. The ACSEP acknowledges this potential conflict between the rights of the athlete and the rights and responsibilities of the governing body. It is likely that any such conflicts will need to be resolved on a case by case basis.
- d. At this point in time only elite athletes should be evaluated this way for the following reasons:
- As previously stated, there is insufficient local data to support state or national-level government funding of a PCE programme for all young competitive athletes.
 - There is some evidence that the level of competition and, by inference, number of training hours, may be a risk factor for sudden cardiac death in those with an SCD-linked pathology.
 - The ACSEP believes that there is a greater responsibility to evaluate elite athletes as they are incentivised to play sport, either through direct financial or other gain.
 - Only professional organisations and state and national sports institutes are likely to have the governance and resources available to fund and deliver a PCE programme in its entirety.
- e. Other young competitive and recreational athletes may participate in sport without a formal evaluation process, but are encouraged to consult a medical practitioner. This consultation should not be solely focused on cardiac pathology but also to assess general health and well-being.
- f. All athletes with symptoms suggestive of cardiac disease should be referred to a sport and exercise physician or an appropriate cardiologist for further investigation. All athletes with a family history of sudden cardiac or unexplained death in a first degree relative under the age of 50 or a family history of an inherited cardiomyopathy or arrhythmia syndrome should also be referred.
6. All organisations that conduct PCEs must maintain appropriate governance of the entire evaluation process. This includes, but is not limited to, appropriate record keeping and policies and processes relating to the management and support of those investigated for, and diagnosed with, SCD-associated conditions.



7. The ACSEP recommends that there is community access to an Automated External Defibrillator (AED) at all sporting venues where competitive sport is played.
8. The ACSEP recommends that all sporting organisations have an action plan for the management of the collapsed athlete, which must include appropriate maintenance of an AED and training in its use.
9. The ACSEP acknowledges that the prevalence of ischaemic heart disease (IHD) is greater in young indigenous Aboriginal and Torres Strait Islanders, Maori and Pasifika people. As such the ACSEP recommends that health care and community care workers involved with these indigenous groups be aware of the possibility that these populations may be at greater risk of SCD.

Reviewed and Endorsed by ACSEP Research Committee
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