



The British Association of
Sport and Exercise Sciences

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BASES recommendations for the use of ECG during exercise testing

Background and rationale

The mandatory use of electrocardiography (ECG) for the screening of individuals at rest and during exercise has been a hotly debated topic within the BASES membership. Most laboratories within the UK which carry out scientific support and research with healthy and/or athletic populations do not routinely use ECG as an additional screening tool to examine risk stratification or monitor rhythm disturbance during testing. However, there are a small number of laboratories that do use ECG. Much of this difference appears to stem from the populations that individual laboratories routinely work with.

The BASES laboratory director's group has initiated extensive research and consultation with various experts within and outside BASES that represent areas of health and safety, bioethics, research, scientific support, health and exercise, and sport and performance. Following this period of consultation, the following recommendations on good practice in to the use of ECG at rest and during exercise have been accepted by the BASES Executive Committee in January 2009.

BASES recommendations regarding the use of ECG

1. In order to maintain high standards and quality assurance, all procedures should have undergone the appropriate risk assessment (outlined by the Health and Safety Executive), and where necessary procedures should be granted ethical approval.
2. All clients should complete a health screening questionnaire and resting blood pressure to establish risk stratification and ascertain contraindications to the protocol. When the client is deemed suitable to continue with the proposed protocol an informed consent should be completed (signed and dated) by the client.

3. ECG is not considered to be a mandatory instrument for pre-exercise screening or for monitoring rhythm disturbances during exercise testing for **apparently healthy individuals** that display no contra-indications to the proposed exercise testing; this should be established from the health screening questionnaire, verbal enquiry and consent forms.
4. The use of ECG (with the appropriate equipment, expertise and training) is wholly appropriate and should be used where laboratories routinely conduct consultancy and/or research with clients and groups that may be termed 'higher risk' or for those displaying cardiac related clinical pathologies.
5. BASES accredited facilities **must** have appropriately qualified 1st aid staff and equipment. This includes a working communications link to emergency services and an automated external defibrillator (AED) with appropriately trained staff to operate the AED. This level of provision is recommended for all BASES professionals regardless of laboratory accreditation status.
6. Where ECG screening is necessary, but cannot be conducted by the practitioner, perhaps for the lack of equipment and/or expertise, the practitioner should refer the client to the relevant experts within BASES. Appropriately equipped and qualified professionals within BASES can be identified by examining the BASES Consultant Finder (<http://www.bases.org.uk/conssearch.asp>) and Laboratory Finder (<http://www.bases.org.uk/labfinder.asp>).

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