



SPORTSCARDIOLOGYBC

SportsCardiologyBC:

Mission, Goals and Future Direction

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Public Health Considerations

- With the understood benefits of exercise, there has been a visible increase in participation in organized athletics and endurance sports and exercise in the aging population
- Paradoxically, exercise can acutely increase the risk of myocardial infarction, aortic dissection arrhythmias and sudden cardiac arrest and/or sudden cardiac death

Important Questions



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- Does **exercise** increase the risk of **SCD** and what **etiologies** account for SCD in **athletes**?
- Can we **prevent** sudden cardiac death in athletes?
- What **restrictions** should be placed upon individuals with **cardiovascular disease**?
- What are appropriate **exercise thresholds**?



Screening in Masters Athletes

- Recommendations vary across agencies and countries
- Family history and personal symptoms questionnaire and physical examination (i.e. AHA 14-element)
 - Specific to the Masters athlete?
- Cardiovascular risk score (i.e. SCORE, FRS)
 - Resting ECG and stress testing?
 - Other imaging modalities?



N = 800+ Recreationally Competitive and High Performance Masters Athletes

Initial Screen:

History and Personal Symptoms Questionnaire, Physical Exam,
Framingham Risk Score, Resting 12-lead ECG

Negative

No Further Testing →
Follow-Up (5 Years):
ECG, FRS,
Questionnaire

Positive

Exercise Treadmill Test

**Negative: Follow-Up
(5 years): ECG, FRS,
Questionnaire**

Positive

**Further Examinations (i.e. echo, 24 h
holter, CMR, CCT/CACS)**

**No Cardiovascular
Disease**

**Follow-Up (5 years):
ECG, FRS,
Questionnaire**

**Cardiovascular
disease → Clinical Care**

**Other →
Clinical Care**

Sports Cardiology BC Research Study: Cardiovascular Screening and Risk Assessment in Masters Athletes



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Primary Objective:

- Prevent adverse cardiac events and sudden cardiac death in sport in the Masters athlete

Outcomes:

- Prevalence of cardiovascular disease (i.e. CAD)
 - Prevalence of risk factors (i.e. hypertension, dyslipidemia)
 - Prevalence of atrial fibrillation in the masters athlete and its association with intensity of sport and volume of physical activity
-
- Compare and contrast efficiencies of different screening tests used (questionnaire, physical exam, 12-lead ECG)

If you or your organization wants
to participate....



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Contact Barb Morrison:
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Reasons CV Specialists See Athletes

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- Help create and implement cardiac policy.
- Perform and interpret CV screening tests.
- Make immediate participation and return-to-play decisions.
- Determine whether there is a CV cause of symptoms.

Reasons CV Specialists See Athletes (cont.)



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- Evaluate finding(s) suggestive of underlying CV pathology during non-CV medical encounters or dedicated pre-participation CV screening
- Provide work-up and treatment after nonfatal sudden cardiac arrest
- Participation recommendation and exercise prescription with known or corrected CV disease
- Assist in transition from cardiac rehabilitation to higher level of exercise

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- Multidisciplinary medical team approach
- Goals of the program are outlined by the 4 pillars:
 - **Research, Clinical Assessment, Education and Advocacy**
- Clinical focus: Risk assessment and guidance in athletes with cardiac abnormalities, with a focus on Master's athletes with CHD
- Resource for medical community to educate and provide local perspective on controversial topics
- Research: Detection, prevention and treatment of cardiovascular disease, registry formation, risk factor and disease prevalence



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Team

- Dr. Saul Isserow
- Dr. Brett Heilbron
- Dr. Andrew Krahn
- Dr. Shub Sanatani
- Dr. Jack Taunton
- Dr. Darren Warburton
- Dr. Kam Shojania
- Dr. James McKinney
- Dr. Hamed Nazzari
- Dr. Anthony Della Siega
- Dr. Rick Leather
- Dr. Kevin Pistawka
- Dr. Mike Wilkinson
- Dr. Janet McKeown
- Dr. Rich Vandegriend
- Dr. Michael Luong
- Dr. Christopher Fordyce
- Mr. Faisal Aziz

Sports Cardiology BC

Stay active, stay fit, stay safe

OUR MISSION

Clinical Assessment

With the overwhelming existing evidence of the beneficial and preventive effects of exercise, our society is becoming more and more physically active. Our goal is to assess and evaluate athletes to ensure safe participation in athletics.



Research

With an aging population and an overall increase in the participation of regular athletics and exercise in the general population, research in risk factors and warning signs for cardiovascular events must be investigated.



Advocacy

In order to educate the public on the importance of cardiovascular health and help prevent tragic cardiovascular events, Sports Cardiology B.C. will collaborate with local, national and international organizations.



Education

Through the dissemination of results from research investigation and the interpretation of clinical case studies, public education on safe participation in athletics needs to be provided.





VGH & UBC Hospital Foundation is honoured to name the

Jack and Elly Senior Cardiovascular Centre

Questions?

www.sportscardiologybc.org

