



# WellSpring

Sharing physical activity knowledge

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## Balancing the risk and reward of physical activity:

### Using the Get Active Questionnaire by the Canadian Society for Exercise Physiology (CSEP)

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#### Introduction

The benefits of physical activity for health and wellness are indisputable, and increasing population levels of regular activity is an important goal. As with any health promotion strategy, the potential risks in relation to the possible rewards should be considered. The rewards associated with increasing physical activity levels are clear; at an individual level, more physical activity is associated with reduced risk of diabetes, heart disease, and hypertension, as well as improved mental health and quality of life for people of all ages.<sup>1</sup> The rewards are equally compelling at a population level. A report by the Conference Board of Canada suggests that if 10% of Canadians increased their physical activity and reduced their sedentary time, healthcare spending could decrease by \$2.6 billion by 2040.<sup>2</sup> But what about the potential risks?

The most common risk of exercise identified by healthcare professionals and the general public is a cardiovascular (CV) event or sudden cardiac death (SCD) during exercise. Indeed, when these events occur, they are traumatic and usually garner a great deal of media attention. Pre-participation health screening is recommended to help minimize the risk of adverse events during exercise. This can be done with some combination of questionnaires, interviews, medical clearance, or exercise stress testing.

#### Putting the risk of an adverse event during exercise into perspective

When balancing risk and reward, it is important to consider the magnitude of the risk. While there is a transient increase in the risk of a CV event during vigorous exercise, adverse events during exercise are actually quite rare. A number of different studies have examined this issue and found that the risk of a CV event is approximately 0.02 per 10,000 participant hours of exercise.<sup>3</sup> That means if an entire mid-sized city of 500,000

#### S U M M A R Y

The new Get Active Questionnaire tool, which can be found on the CSEP website, can be used in a variety of different settings to support pre-participation screening in physical activities.

The tool helps individuals and practitioners identify risk factors that should be considered before engaging in physical activities.

people exercised vigorously for one hour, one person would be expected to have a CV event. The reality is that exercise is safe for most people, and the greater hazard is likely to be inactivity and high levels of sedentary behaviour.

That said, pre-participation screening can play an important role, both for individuals and for Qualified Exercise Professionals (QEP). People with symptoms of dizziness, chest pain, or shortness of breath should seek guidance from a medical professional before starting a new exercise program. Similarly, individuals with known CV, metabolic, or kidney disease would likely benefit from consulting with a QEP and starting with supervised exercise. A well-designed exercise program with modest progressions will reduce the risk of adverse events during exercise, possibly more than pre-participation screening ever could.<sup>4</sup> Self-administered pre-participation screening tools, such as the Get Active Questionnaire by the Canadian Society for Exercise Physiology (CSEP), can provide individuals with appropriate guidance for safe and healthy physical activity.

### Development of the Get Active Questionnaire by CSEP

In 2015, the CSEP Board of Directors began the development of a new pre-participation screening tool that adhered to the following principles: 1) grounded in evidence; 2) user-friendly design; and 3) safely encourage and “screen-in” for regular, healthy physical activity. The development of the questionnaire and the accompanying reference document was coordinated by an expert steering committee and included a number of steps, such as input from CSEP members, stakeholders, and other experts, and a review of the evidence related to adverse events with exercise. After development of the tool, CSEP commissioned three studies to evaluate its effectiveness for children, adults, and older adults. The overall results from the studies were generally positive and led to further refinement of the Get Active Questionnaire and Reference Document. After two years of hard work, CSEP is proud to introduce the Get Active Questionnaire and the accompanying Reference Document.

### Orientation to the Get Active Questionnaire

The Get Active Questionnaire is a freely accessible, self-administered tool on the CSEP website that could be used in a variety of different settings. The following are examples of settings or scenarios where the Get Active Questionnaire could be used:

- Recreation or fitness facilities may have their clients complete the questionnaire prior to joining an exercise class or program.
- Healthcare professionals (i.e., physicians, physiotherapists, dieticians) may provide the questionnaire when encouraging their patients to start exercising.
- Individuals who wish to become more active, but have safety concerns, can complete the questionnaire on their own.
- QEPs may use the questionnaire as one part of the pre-screening process with clients.

The Get Active Questionnaire includes several sections: i) Prepare to become more physically active; ii) Assess your current physical activity; iii) General advice for becoming more active; and iv) Declaration. In the first section, four questions are asked about diagnosed medical conditions, symptoms, and any restrictions to physical activity (Figure 1).



*The risk of a CV event is approximately 0.02 per 10,000 participant hours of exercise (or 1 per 500,000 people who exercised vigorously for one hour).*

<input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO		PREPARE TO BECOME MORE ACTIVE
The following questions will help to ensure that you have a safe physical activity experience. Please answer YES or NO to each question <u>before</u> you become more physically active. If you are unsure about any question, answer YES.		
1		Have you experienced <b>ANY</b> of the following (A to F) <b>within the past six months</b> ?
<input type="checkbox"/>	<input type="checkbox"/>	A A diagnosis of/treatment for heart disease or stroke, or pain/discomfort/pressure in your chest during activities of daily living or during physical activity?
<input type="checkbox"/>	<input type="checkbox"/>	B A diagnosis of/treatment for high blood pressure (BP), or a resting BP of 160/90 mmHg or higher?
<input type="checkbox"/>	<input type="checkbox"/>	C Dizziness or lightheadedness during physical activity?
<input type="checkbox"/>	<input type="checkbox"/>	D Shortness of breath at rest?
<input type="checkbox"/>	<input type="checkbox"/>	E Loss of consciousness/fainting for any reason?
<input type="checkbox"/>	<input type="checkbox"/>	F Concussion?
<input type="checkbox"/>	<input type="checkbox"/>	2 Do you currently have pain or swelling in any part of your body (such as from an injury, acute flare-up of arthritis, or back pain) that affects your ability to be physically active?
<input type="checkbox"/>	<input type="checkbox"/>	3 Has a health care provider told you that you should avoid or modify certain types of physical activity?
<input type="checkbox"/>	<input type="checkbox"/>	4 Do you have any other medical or physical condition (such as diabetes, cancer, osteoporosis, asthma, spinal cord injury) that may affect your ability to be physically active?

Figure 1. First section of the Get Active Questionnaire.<sup>5</sup>

If the user answers “yes” to any of the questions, they are referred to the Get Active Questionnaire Reference Document for advice. Depending on the symptoms and/or the diagnosed medical condition, the Reference Document may suggest that moderate exercise is safe, or it may encourage the user to seek further information from a healthcare provider or a QEP.

In the second section, the Get Active Questionnaire includes a feature unique to pre-participation screening questionnaires — a calculation of the user’s current physical activity levels per week. Understanding current physical activity levels is important for prescreening as the risk of an adverse CV event during exercise is significantly lower among habitually active people.<sup>6</sup>

Finally, the Get Active Questionnaire provides the user with general advice for becoming more active and a declaration section that includes an option for the user to indicate if they would like further advice from a QEP. This may be useful for recreational facilities to identify clients that would like a consultation with a QEP on staff. Note that a witness is not needed for this questionnaire as it is intended to be a self-administered document.

### Using the Get Active Questionnaire as a practitioner

Pre-participation screening is an essential step for identifying risk factors and determining who should seek medical clearance, as well as for getting to know clients and their needs. The Get Active Questionnaire (or any self-administered tool you use) should be only one step in the overall pre-participation screening process. Time should also be taken to document additional information from the client about diagnosed medical conditions, prescribed medications, pre-exercise heart rate and blood pressure, and current physical activity levels.

Self-administered pre-participation screening questionnaires are designed to identify those who may be at increased risk due to medical history. However, it is entirely possible for clients who are well-managed through physician-prescribed therapies and lifestyle interventions to complete these questionnaires without answering “yes” to the questions about diagnosed medical conditions, symptoms, or any restrictions to physical activity.

*If 10% of Canadians increased their physical activity and reduced their sedentary time, healthcare spending could decrease by \$2.6 billion by 2040.*

To illustrate this, a client with type II diabetes mellitus, who has been encouraged by their physician to increase their physical activity levels, may not have any current symptoms that indicate exercise may pose a risk. As a result, the client may answer “no” to all questions in the first section of the Get Active Questionnaire. However, as a QEP, you would still want to know that the client has been diagnosed with a condition and their current physical activity levels.

A QEP may ask all new clients to complete the Get Active Questionnaire prior to initiating services so they can start getting to know their client better. If a QEP works at a recreation centre or physician-referred exercise clinic, they may also have individuals referred for further advice due to a “yes” response on the Get Active Questionnaire and the corresponding guidance in the Reference Document. Regardless, the steps that follow would be similar and include:

- Review both sides of the Get Active Questionnaire.
- Follow-up and determine why the client answered “yes” to any question, if applicable.
- Ask the client about diagnosed medical conditions and prescribed medications.
- Measure pre-exercise heart rate and blood pressure. If the heart rate is below 100 beats per minute, systolic pressure is below 160 mmHg, and diastolic pressure is below 90 mmHg, risk of an adverse event during exercise is low.<sup>7</sup>
- Review the client’s current physical activity levels from the Get Active Questionnaire.

Knowing each of above listed steps can influence your decision about whether the benefits of exercise outweigh any potential risks. Furthermore, in the case of an adverse event, pre-participation screening provides you with documentation that confirms you acted in a reasonably safe manner. More information about how a QEP can use the Get Active Questionnaire in practice is discussed in a [free webinar](#) from CSEP.

## Conclusion

There are two key objectives of pre-participation health screening: to identify individuals (or help them self-identify) who should receive medical clearance before starting a new exercise program, and to gather valuable information that a QEP can use to provide safe and appropriate exercise advice. The Get Active Questionnaire can help achieve these objectives while also reducing barriers to initiating physical activity, because the evidence has shown that for most people, the benefits of exercise far outweigh the risks.<sup>3,8,9</sup> The Get Active Questionnaire is freely available to practitioners and the general public and should be part of every physical activity plan.

## ABOUT THE AUTHORS

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