

Facilitating Physical Activity Prescription by Medical Professionals with Open-access Web-based Resources

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Introduction

Physical inactivity is a global public health problem,¹ and regular exercise is one of the most powerful modifiable risk factors for the prevention and management of chronic disease.² Regular physical activity has been shown to reduce the incidence of cardiovascular disease, stroke, hypertension, type 2 diabetes, certain cancers, and premature all-cause mortality.³ In patients with inflammatory arthritis and osteoarthritis, regular physical activity improves function, reported pain, and quality of life.^{4,5} Despite the abundant evidence supporting the role of regular physical activity in the prevention and management of chronic disease, inactivity remains the norm. As of 2013, 78% of Canadian adults and 91% of youth were not meeting the guidelines of 150 minutes of moderate intensity exercise and two strength training sessions per week.⁶

While patients are more likely to exercise if physical activity is addressed by their healthcare provider,⁷ exercise prescription in the clinical setting has its challenges. Busy clinicians report barriers such as lack of time, knowledge, training, and resources.^{8,9} With www.ExRxMed.com, we hope to empower all physicians to ask every patient at every visit about physical activity in an individualized, time-efficient manner. An overview of the A.C.E.S. Framework for discussing physical activity is shown below (Figure 1).

1) Ask about physical activity.

Start the conversation about physical activity using non-judgmental language and open-ended questions: “What do you like to do that is physically active?”

An online physical activity vital sign calculator is integrated into the website, and we encourage clinicians to send this to their patients in advance via email. It generates a printable PDF report that can serve as the basis for your conversation about physical activity if time permits.

2) Counsel individuals to reduce sedentary time.

If patients are inactive, the first priority is counseling to reduce sedentary time (Figure 2). If patients are somewhat active and motivated, add balance, strength, or flexibility activities (Figure 3). We have created two resources that illustrate a simple, step-wise, and safe approach to gradually increasing the frequency, intensity, and variety of weekly physical activity.

3) Evaluate for safety.

We have included a link to the “Get Active Questionnaire”¹⁰ to enable physicians to screen for patients who may need further cardiorespiratory investigations prior to engaging in moderate-to-vigorous exercise.

Figure 1
A.C.E.S. Framework of Physical Activity Prescription



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Figure 2
ExRxMed Physical Activity Graphic

Gradually increase the frequency and intensity of your daily physical activity.

Start by breaking up sedentary time. Pick an activity you like, set a goal and be consistent in working toward it.



4) Send to a qualified exercise professional (QEP), if necessary.

There is a referral form available to encourage patients to find a qualified exercise professional to assist them in achieving their goals. We have listed several Canadian resources and hope to expand this resource in the future.

Finally, there is a link to the Exercise is Medicine Physical Activity Prescription Pad for clinicians who wish to complete a formal prescription for their patients. Our resources are meant to be used in combination. We encourage physicians to incorporate them into clinical practice in a manner that suits their workflow, patient population, and available resources.

Conclusion

Physical activity serves as an invaluable pillar in the prevention and management of many chronic diseases, as well as in the enhancement of quality of life. We have adapted the five A's model of behaviour counseling¹¹ to develop a web-based tool aimed at minimizing commonly reported barriers to physical activity prescription. Next steps will involve validation of our tool through formal research to evaluate the impact and outcomes of web-based counseling tools on physician and patient behaviours. Please contact us if you are interested in collaborating by visiting www.ExRxMed.com.

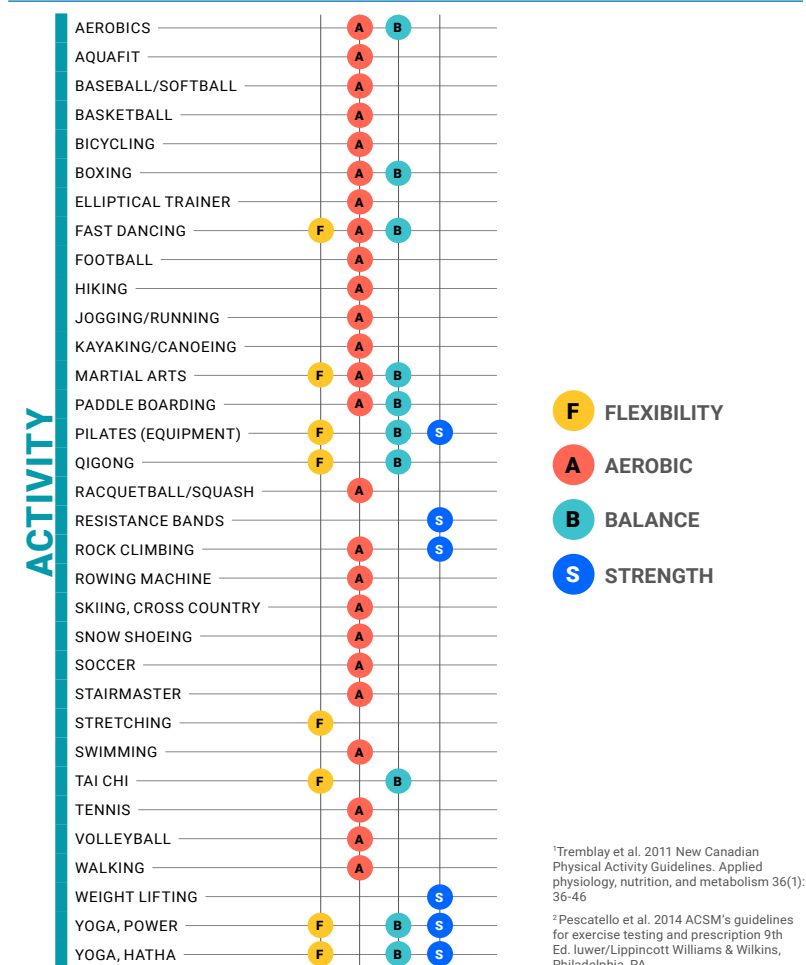
References available on page 29.

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Figure 3
ExRxMed Physical Activity Matrix



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Physical Activity Matrix

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