MOVE IT! 'Prescribing Exercise' in Healthcare

ABSTRACT

The benefits of physical activity are far reaching, ranging from cancer prevention to disease treatment. However, there may be confusion among healthcare providers how to recommend physical activity to their patients: how long, what activities, and how to do so. This article briefly reviews the benefits of exercise, and details strategies physicians can use to encourage their patients to be physically active.

KEYWORDS: Exercise, physical activity, prescription, patient education, health promotion, lifestyle

The benefits of physical activity are well-documented in medical literature. Exercise has been showing to decrease the risks of numerous illnesses, including cardiovascular and cerebrovascular illnesses.[1] In addition, growing evidence suggests that physical activity can decrease one's risk of developing many malignancies, including lung, colon, and pancreatic cancers.[2] Moreover, exercise has numerous positive impacts on mental health, and is often utilized as part of a collaborative treatment plan for depression and anxiety.[3] Given these benefits, it is reasonable to conclude that primary care providers ought to encourage their patients to engage in physical activity. However, the question of how much—and how often—has been debated. This article will briefly explore the various recommendations for physical activity, and outline simple approaches physicians can take when counselling their patients around exercise.

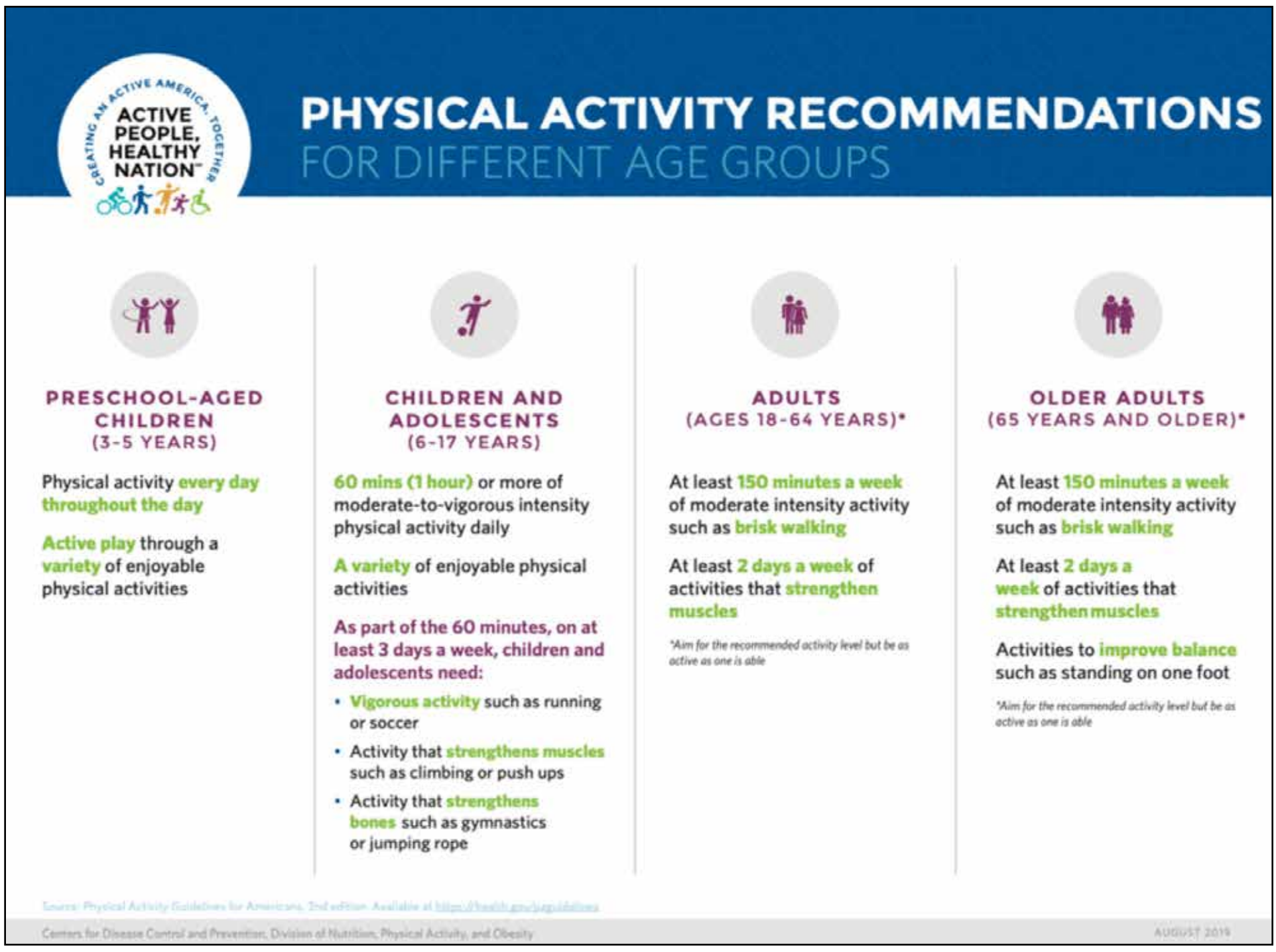
In the past, several recommendations have been made about the optimal level of physical activity patients should aim to get. The most commonly heard recommendation is an average of 150 minutes of moderate-level exercise a week. The Centre for Disease Control and Prevention (CDC) suggests that this can be

Dr. Marina Abdel Malak *is a Family Physician in Mississauga, Ontario. She has served on several committees and groups, including The Primary Care Network and Collaborative Mental Health Network. She has a passion for medical education, patient empowerment, and increasing awareness about the relationship between mental, emotional, and physical health. Dr. Abdel Malak is highly involved in quality improvement initiatives, and her research interests include strategies to support physician wellness, patient self-management, and optimizing physician education.*

done by achieving 30 minutes of exercise, five times a day[4] (figure 1). Figure 1 contains an infographic that physician can use to outline the recommendations by age group. Note the guideline on strength-training two or three times a week, which is important for bone-mass development and stability. It is important to also note that for younger populations, the time increases to 60-minutes daily, with a general note that children and youth should be more active than not throughout the day.

Although the above guidelines are general recommendations, it is critical to remember one clear message to patients: any movement is helpful. As the World Health Organization (WHO) puts it, we should aim to 'move more, sit less'.[5] While we are accustomed to thinking of exercise as something that makes our pulse

Figure 1: Exercise Recommendations



By page, from https://www.cdc.gov/physicalactivity/basics/pdfs/FrameworkGraphicV11.pdf

quite rapid, it is critical to relay to patients that all movement counts. Simply mowing the lawn, doing yard work, cleaning the house, walking to and from a store, etc. counts as physical activity. When discussing exercise with patients, it might be helpful to start with simple activities that can be incorporated throughout the day. For example, can the patient park a little farther from their destination and walk? Can they take the stairs rather than the elevator? Can they aim to vacuum their home once a week? Do they enjoy gardening or raking the leaves? Of course, these ideas must be patient-dependent. Physicians must make their advice tailored to specific patients. For example, an older adult who has knee pain might not be able to go up and down the stairs, but perhaps he or she is able to shovel the snow. A teenager might enjoy reading a book while on a stationary bike, rather than sitting on the couch.

While prescribing exercise, physicians must keep in mind the patient's strengths, resources, financial situation, environmental setting, past medical history, and social history. All of these factors impact what physical activity the patient can engage in. For example, some patients may not have access to clean and safe neighbourhoods to take walks in, while others many have very small apartments (with large families) that do not permit indoor physical activity to occur with ease. Gym memberships and equipment can cost money, so it is important to counsel patients that they can still be active without these. Of note, encouraging patients to schedule their activity is particularly helpful.[6] This can be done with others, which has shown to improve adherence to physical activity. Therefore, physicians can encourage their patients to make physical activity a 'social event'; for example, a walking date with their partners, playing tag with their children, cycling with their friends, gardening every weekend, etc. If this is not doable, patients should still be invited to schedule what time they will do their exercise. The exact timing during the day is not relevant, provided it is not within half-an hour of sleeping (which can potentially impact sleep), or right after meals (which can cause gastrointestinal distress). Some patients may find that they have the most time to be active before work in the morning, while others prefer to use their lunch break to get active. Still others may find that exercising after work is rewarding and a form of stress relief. Hence, encouraging patients to find what activity—and time—works for them is critical for patient empowerment and buy-in.

How intense physical activity should be varies—as stated before, the most important thing is that the patient is active. This is important

to keep in mind when introducing the concept of exercise to patients, as they may state that they get too tired when they 'huff and puff', and they don't like (or in some cases, it is medically contraindicated) getting their heart rate elevated above a certain level. Generally, patients can be taught to use the Relative Perceived Effort (RPE) scale when rating their activity (figure 2). To be moderate to vigorous, physical activity falls around a 4-6, where patients can talk but cannot sing. Of course, patients should always discuss beginning physical activity with their physicians before doing so, as some patients may have conditions that preclude certain exercises from being performed. Although movement is important, safety is critical as well. In some cases, referring to a sports medicine specialist or physiatrist might be warranted or helpful.

While this article will not discuss this in detail, physicians need to counsel patients about habits that support overall wellness, along with physical. This can include information about ensuring adequate and proper nutrition, stretching before and after workouts, avoiding excess caffeine and maintaining hydration, and so forth.[7] Health Canada's website contains a wealth of information about this, as well as general health information. Furthermore, it is important for patients to outline their goal of becoming physically: why is this is important to them? What benefits are they hoping to achieve? Jeep in mind that this is individual for all patients. For some, maintenance of a healthy weight may be motivating them to get physically active; for others, an increase in strength and balance might be important. Still others simply want to feel more energetic, while others may have a health condition that has prompted them to become more interested in physical activity. Of course, some patients may not be interested in exercise at all, in which case physicians should discuss the benefits of exercise, and 'start low and go slow'. Concepts and communication strategies from

Figure 2: Return to Physical Activity After Time Away

Taken from https://thetrainingroompt.com/return-to-physical-activity-after-time-away-or-quarantined/

the stages of change and motivational interviewing may be particularly useful in these cases.[8]

There are numerous resources that physicians can use when counselling patients about exercise. One particular website is Exercise is Medicine Canada, which has a host of patient information brochures, as well as information directed to healthcare professionals. The Canadian Society for Exercise Physiology (CSEP) also has many visual resources for the overall community, as well as for healthcare professionals. Some examples include brief summaries of activity guidelines, as well as ideas for patients to consider how they can become more active. Figure 3 is

Figure 3: Tips to Get Active

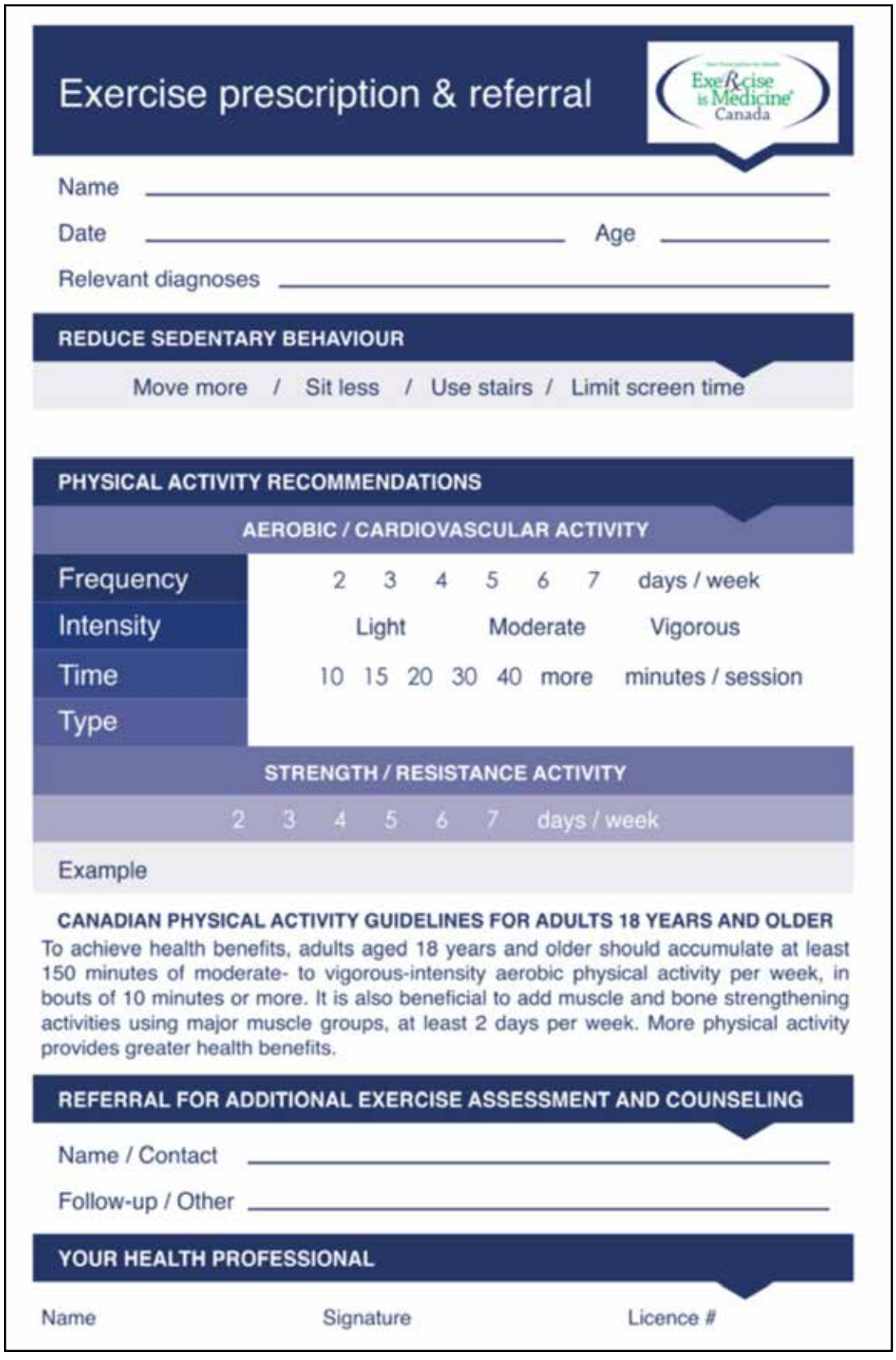
Retrieved from https://csepguidelines.ca/

one example of handouts available on the CSEP website. There are also websites, such as Translating Research Evidence and Knowledge (TREK; https://exercise.trekeducation.org) which have educational videos that patients can watch about the benefits of physical activity, as well as ways to enhance one's fitness in daily life.

There is well documented evidence that prescribing exercise significantly increases patients' motivation and integration of physical activity into their daily routines. Physically handing a prescription is not necessary, but can be immensely helpful. This relays the message to patients that exercising is part of the patient's treatment plan, and is strongly recommended by their physician—a trusted source for healthcare information. Samples of exercise prescriptions are widely available; one such example is in figure 4, taken from Exercise is Medicine Canada.

In summary, encouraging patients to become physically active is a core role of the physician. Physical activity has numerous benefits, both for prescribing and treating several ailments. In general, physical activity promotes wellness and prevents illness, and can prolong survival and improve quality of life. Exercise recommendations vary, but the general rule of 150 minutes a week is widely quoted. The most important thing a physician can do is open the discussion about physical activity with their patients, and tailor their advice to each patient. Providing an exercise prescription, encouraging patients to outline why they want to be active and how it will benefit them, and empowering

Figure 4: Exercise Prescription



Exercise prescription & referral

Exercise is Medicine Canada

Name _____

Date _____ Age _____

Relevant diagnoses _____

REDUCE SEDENTARY BEHAVIOUR

Move more / Sit less / Use stairs / Limit screen time

PHYSICAL ACTIVITY RECOMMENDATIONS

AEROBIC / CARDIOVASCULAR ACTIVITY

Frequency	2	3	4	5	6	7	days / week
Intensity		Light		Moderate		Vigorous	
Time	10	15	20	30	40	more	minutes / session
Type							

STRENGTH / RESISTANCE ACTIVITY

2 3 4 5 6 7 days / week

Example

CANADIAN PHYSICAL ACTIVITY GUIDELINES FOR ADULTS 18 YEARS AND OLDER

To achieve health benefits, adults aged 18 years and older should accumulate at least 150 minutes of moderate- to vigorous-intensity aerobic physical activity per week, in bouts of 10 minutes or more. It is also beneficial to add muscle and bone strengthening activities using major muscle groups, at least 2 days per week. More physical activity provides greater health benefits.

REFERRAL FOR ADDITIONAL EXERCISE ASSESSMENT AND COUNSELING

Name / Contact _____

Follow-up / Other _____

YOUR HEALTH PROFESSIONAL

Name Signature Licence #

Taken from https://www.exerciseismedicine.org

SUMMARY OF KEY POINTS

1) Physicians are in an optimal position to counsel their patients about physical activity

2) Guidelines for activity varies among individuals by age, and should be tailored to each patient

3) Exercise prescriptions can be used in practice to motivate and counsel patients on physical activity

patients to make exercise a part of their daily routines is vital. Helping patients remember that 'any movement counts' is often a simple place to begin. So, the next time you are interacting with your patient, will you prescribe exercise? I hope this moved you to do so!

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CLINICAL PEARLS

Encouraging patients to become physically active is a core role of the physician.

Prescribing exercise significantly increases patients' motivation and integration of physical activity into their daily routines.

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