

Meeting guidelines

The Canadian Society for Exercise Physiology and Health Canada have recently released Canada's Physical Activity Guide.¹ Based on the scientific literature on the physical, social, and psychological benefits of physical activity for adults aged 25–55, the Guide establishes goals for how much physical activity is enough to achieve the wide range of health benefits. Just as importantly, the Guide provides key messages about how individuals can take the first steps toward reaching these goals.

The recommended amounts of regular activity provide the following benefits:¹

- better health;
- improved fitness;
- better posture and balance;
- better self-esteem;
- weight control;
- stronger muscles and bones;
- relaxation and stress reduction;
- continued independent living in later life.

Some of these benefits can be achieved more rapidly if vigorous activity is included regularly in a person's routine. These benefits will accrue more gradually if lighter-intensity activities are chosen. For people at low levels of health, the amount of activity necessary to induce major perceived changes in health,

self-esteem, and other health-related improvements may be relatively low and, although individuals might report feeling better, may not yield objectively measured changes in fitness and health.

The guidelines for physical activity were developed specifically for adults aged 25 to 55 and are deemed sufficient to achieve a wide range of health benefits geared to enhancing health-related quality of life and preventing disease and chronic conditions in this age group. Young children generally require more activity for health benefits than do adults.^{2,3} Similarly, the emphasis on the type or overall

amount of activity may differ for older adults, depending on the public health goal. The various age groups are thus presented separately in this bulletin.



Canada's Physical Activity Guide

Scientists say accumulate 60 minutes of physical activity every day to stay healthy or improve your health. As you progress to moderate activities you can cut down to 30 minutes, 4 days a week. Add up your activities in periods of at least 10 minutes each. Start slowly... and build up.



Adults aged 25 to 55

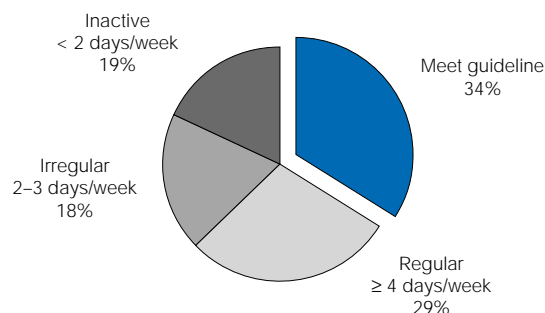
To qualify as meeting the Canadian guideline, respondents to the 1997 Physical Activity Monitor who were 25 to 55 years old had to follow one of the following patterns of physical activity:

- 60 minutes of any intensity activity daily,
- 30 minutes of moderate-intensity activity, four days a week, or
- 20 minutes of vigorous-intensity activity, four days a week.



Figure 1

ADHERENCE TO PHYSICAL ACTIVITY GUIDE adults aged 25–55



1997 Physical Activity Monitor, CFLRI

Results from the 1997 Physical Activity Monitor indicate that one-third of Canadians aged 25–55 meet the guidelines outlined in Canada’s Physical Activity Guide (Figure 1). A further 29% participate in some physical activity on four or more days a week, but do not meet the guideline because of insufficient duration or intensity. The remainder are not active often enough, with 18% being active two to four days a week and 19% being active even less often. This pattern holds for both men and women.

The likelihood of meeting the activity pattern specified by the Guide decreases by age group, from a high of 38% among Canadians aged 25–34 to a low of 29% among those aged 45–55. Again, this pattern holds for both men and women.

With age, people need to participate in physical activities on fewer days a week and for less time every day to meet the guidelines. Walking, for example, is a moderate-intensity activity for a 55-year-old, but only a light-intensity activity for a 25-year-old. Thus, walking for a total of 30 minutes, four days a week, accumulated in bouts of at least 10 minutes, is sufficient to meet the guideline for a 55-year-old, but not for a 25-year-old.

Socio-economic differences

While there is no difference in the proportion of people meeting the guidelines with education level, university graduates are more

likely to report participating in some activity on at least four days a week and correspondingly less likely to report participating infrequently (less than twice a week).

Similarly, satisfying the guideline and income level are not significantly related, but participation is more infrequent among people with lower levels of income. Those employed part-time—more of whom are women—are less likely to meet the guideline (24%) than full-time employees (33%) or homemakers (39%).

Canadians who are married or living with a partner are less likely than those who never married or those who were widowed, divorced, or separated to satisfy the guideline. Again these relationships are influenced by the age-related patterns of physical activity. Having children living at home appears to exacerbate the problem. Parents with children at home are less likely than other adults to meet the guideline. Nonetheless, small changes in lifestyle—such as increasing the duration or intensity of physical activity—could change this situation significantly, as parents still tend to participate in activities an average of four or more times weekly.

While the proportions achieving the goals for physical activity are about equivalent in communities of different sizes, the likelihood of participating infrequently in physical activity is lower in larger communities, ranging from 32% in the smallest communities to 17% in large communities ($\geq 300,000$ residents).

There is good agreement between the proportion of Canadians satisfying the activity pattern set out in Canada’s Physical Activity Guide and the proportion showing a high activity level based on overall energy expenditure (as used in the past by the Canadian Fitness and Lifestyle Research Institute). Three-quarters of those considered active (expending at least 3 KKD) by the energy expenditure measure also satisfy the activity pattern recommended by the Guide, with most of the remainder participating in activity at least four times a week.

Adults aged 56 and older

The public health goals for older adults differ from those set for adults more generally. Engaging in physical activity at the frequency, intensity, and time (F.I.T.) level suggested for adults aged 25–55 would confer similar types of health benefits to older adults, particularly those aged 56 to 65,⁴ but this level of activity exceeds that necessary for other important public health benefits for older adults. For instance, participating in activity regularly is a key factor in maintaining functional independence. Depending on the public health goal, different minimum guidelines might be set, resulting in different recommendations for frequency, intensity, and duration. If the goal is to maintain range of motion, mobility, and functional independence, for example, more emphasis could be placed on types of activities, flexibility, and strengthening activities.⁵

As many as one-third of older men and women report participating in some form of physical activity less often than twice weekly. This means that one-third of older adults face increased risk of experiencing losses of mobility and functional capacity, thereby decreasing their functional independence.

Half of adults aged 56 and older accumulate sufficient activity to meet the pattern of physical activity recommended in Canada's Physical Activity Guide, and men and women are equally likely to participate at this level. The pattern is specified in terms of frequency, intensity, and duration. Intensity is relative to the person's age. Walking for exercise is deemed to be at least a moderately intense activity for older adults, so that a 70-year-old who reports walking for 30 minutes at least four times a week satisfies the criteria.

Young adults aged 18 to 24

Different guidelines for physical activity may well be desirable for meeting public health goals for younger adults, but being active at the level specified by Canada's Physical Activity Guide does confer some benefits. For young adults, accumulating at least 20 to

Table 1

PHYSICAL ACTIVITY LEVELS other age groups			
Other adults	Meet F.I.T.*	≥4 days/ week	< 2 days/ week
≥ 56	51%	–	27%
18–24	50	24	14
<i>*F.I.T. = frequency, intensity, time</i>			
Children	Meet guideline	Do not meet guideline	
5–17	39%	61%	

1997 Physical Activity Monitor, CFLRI

30 minutes of vigorous or moderate activity four days a week reduces the risk of coronary heart disease.⁴ Accumulating 60 minutes of activity daily may also help to normalize weight⁶ and build the skills for lifelong activity in this age group.

Half of young adults satisfy the criteria for participation developed for adults aged 25–55. In addition, one-quarter are active at least four times a week, but not for sufficient intensity or duration. This leaves almost 20% who participate infrequently. These findings apply equally to both men and women in this age group.

Children aged 5 to 17

Public health goals for children also differ from those set for adults aged 25–55. In the case of children, the guidelines focus on physical activity levels sufficient for optimal growth and development as well as the establishment of a regular physical activity pattern conducive to lifelong participation.^{2,3}

As was the case in the 1995 Physical Activity Monitor (Bulletin 13), two-thirds of Canadian children and youth do not meet the current guideline for optimal growth and development. According to parents' reports of their children's participation, children do not accumulate a minimum of eight kilocalories per kilogram of body weight daily. Participation at this level also permits sufficient time for children and youth to gain the physical activity skills necessary to develop an active lifestyle for life.

The guideline is not a prescription, but a goal

The literature review for 25- to 55-year-olds that served as a foundation for Canada's Physical Activity Guide suggests some first steps that Canadians can take to help them move toward becoming more active. Suggested actions that can be adapted and built into communication activities, counseling sessions, classes, and other interventions follow.

- Recommend that individuals start slowly and progress gradually.
- Encourage Canadians by reinforcing the idea that every time they try one of the steps, they are making progress toward eventually being more active.
- Direct individuals to where they can get more information on physical activity in their community.
- Develop a list of opportunities to be active within the community and make these available through municipal governments, local organizations, and retail outlets.
- Suggest that individuals watch a class to see if an activity is suitable for them. Encourage them to shop around—the first activity or the first class may not be the best one for them.
- Reinforce the idea that every bit counts—people might add 10 minutes of walking to their daily routine tomorrow, for instance. Help them set realistic goals and discourage them from leaping from no participation to trying to meet the goals in Canada's Physical Activity Guide.

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Adherence to Physical Activity Guide (ages 25–55)

1997 Physical Activity Monitor

	Meet guideline ¹	≥ 4 days/ week	2–3 days/ week	< 2 days/ week
TOTAL, ADULTS (25–55)	33%	29%	18%	19%
Women	34	30	19	18
Men	33	29	18	20
EDUCATION LEVEL				
Less than secondary	28	27	–	29
Secondary	33	25	17	26
College	35	21	25	19
University	34	40	16	10
HOUSEHOLD INCOME				
< \$20,000	31	26	–	–
\$20,000–39,999	35	30	17	19
\$40,000–59,999	33	33	19	15
≥ \$60,000	40	28	18	14
EMPLOYMENT STATUS				
Full-time worker	33	29	19	18
Part-time worker	24	31	27	–
Unemployed	41	–	–	–
Homemaker	39	–	–	–
Student	–	–	–	–
Retired	–	–	–	–
COMMUNITY SIZE				
< 1,000	30	20	–	32
1,000–9,999	35	25	22	18
10,000–74,999	35	28	19	18
75,000–299,999	29	31	23	–
≥ 300,000	36	37	–	17
FAMILY COMPOSITION				
Living with a partner	32	31	17	20
with children at home	30	32	19	19
without children at home	34	30	15	21
Widowed, divorced, separated	37	29	–	–
with children at home	36	–	–	–
without children at home	37	–	–	–
Never married	40	22	23	15
with children at home	–	–	–	–
without children at home	37	21	25	17
ENERGY EXPENDITURE				
Active (≥3 KKD ²)	77	18	–	–
Moderately active (1.5–2.9 KKD)	11	63	23	–
Somewhat active (0.5–1.4 KKD)	–	21	41	38
Sedentary (<0.5 KKD)	–	–	–	90

Physical activity levels (other adults)

1997 Physical Activity Monitor

	Meet guideline ³	≥ 4 days/ week	2–3 days/ week	< 2 days/ week
18–24	50%	24%	–	14%
women	49	–	–	–
men	50	–	–	–
56+	51	–	14	30
women	51	–	–	32
men	51	–	–	27

Physical activity levels (youth)

1997 Physical Activity Monitor

	Active (≥ 8 KKD) ⁴	Moderately active (6–7.9 KKD)	Somewhat active (3–5.9 KKD)	Sedentary (< 3 KKD)
5–17	39%	10%	24%	28%
girls	38	–	27	27
boys	39	11	21	29
5–12	45	11	26	19
girls	43	–	28	–
boys	46	–	24	–
13–17	31	–	22	39
girls	–	–	–	37
boys	30	–	–	41

1 Meet Canada's Physical Activity Guide for sufficient physical activity on a weekly basis to achieve a wide range of health benefits. The Guide calls for 60 minutes of light-to-vigorous-intensity activity daily, OR 30 minutes of moderate-intensity activity, 4 days a week, OR 20 minutes of vigorous-intensity activity, 4 days a week. Minutes of physical activity can be accumulated throughout the day, either continuously or in periods of no less than 10 minutes. The intensity, and thus duration and frequency, depends on the age of the person. For example, walking at a moderate intensity for 30 minutes 4 days a week meets the guideline for a 55-year-old but is insufficient for a 25-year-old.

2 Kilocalories/kilogram of body weight/day; an energy expenditure of 3 KKD is equivalent to walking one hour every day.

3 Although Canada's Physical Activity Guide was developed for adults aged 25–55, it is applied here to younger adults aged 18–24 and older adults aged 56 and older for relative comparisons across age groups.

4 Kilocalories/kilogram of body weight/day; children need to expend at least 8 KKD to be active enough for optimal health.

– Data unavailable because of insufficient sample size.