

# The Research File



Summary from the Canadian Fitness and Lifestyle Research Institute and ParticipACTION

Issue 8-01/09

## Health Benefits of Physical Activity for Adults



The health benefits of physical activity are often spoken about, but many people ask what exactly are they? Warburton and colleagues conducted a literature review to examine the benefits and determine the amount of physical activity necessary for these benefits. Physical activity appears

to reduce the risk of over 25 chronic conditions. Not only does physical activity extend life expectancy, it delays the onset of chronic disability and disease.

### All cause mortality

There are consistent findings of 20%-35% lower all-cause and cardiovascular-related premature mortality among physically active men and women when compared with their

sedentary peers. Low physical fitness has been cited as a more important risk factor than hypertension, high cholesterol, obesity or cigarette smoking and even when another risk factor is present, physical activity has a protective effect. Studies suggest that sedentary individuals can substantially lower their risk with only minor increases in their activity levels.

### Cardiovascular disease

Regular physical activity is associated with 20%-50% risk reductions of cardiovascular disease and coronary heart disease in men and women of all ages. Evidence is beginning to mount for the dose-response relationship between physical activity and stroke, although findings appear to be stronger for ischemic than for haemorrhagic stroke.

### Cancer

There is a clear association between physical activity and lower risks of colon cancer (~30%) and breast cancer (~20%) and growing evidence of the association of a reduced risk for other cancers.



Brought to you by the Canadian Fitness and Lifestyle Research Institute in collaboration with ParticipACTION.



## What's happening in Canada?

Among Canadians:

- 49% are at least moderately active
- 35% are overweight and 16% are obese
- about 60% feel that their overall health is very good
- three quarters feel their mental health is very good or excellent while 21% state that it is good.
- 8% report a having type 2 diabetes
- nearly 3 in 10 report having high blood pressure
- 1 in 10 report heart disease

### Diabetes

Participation in both habitual aerobic and resistance type physical activities appears to reduce the risk of type 2 diabetes mellitus and is an effective strategy in secondary prevention.

### Hypertension

Physical activity is effective in the primary and secondary treatment of hypertension in both normotensive and hypertensive individuals. Habitual physical activity can lead to reductions in blood pressure. While the effect is greatest in those with hypertension, it also extends to the prevention and treatment of hypertension particularly in the overweight and obese.

### Osteoporosis

Weight-bearing exercise (especially resistance exercise) appears to have

positive effects on bone mineral density. Exercise interventions have been shown to prevent or reverse 1% of bone loss per year. In addition, physical activity reduces the risk and number of falls and fractures compared with inactive individuals.

### Musculoskeletal fitness and health

Even without improvements in aerobic fitness, physical activity can reduce chronic disease and disability risks. Better grip strength and greater ability to perform sit-ups has been associated with lower levels of mortality and of weight gain in some populations.

### Mental health

Numerous studies indicate that regular moderate intensity physical activity reduces scores for depressive symptoms and is associated with

lower anxiety. The impact of sufficient physical activity on clinical depression may be as great as pharmacological treatment and may have better sustainability. There is some evidence to support a preventive role for depression, and some association with better ratings of quality of life and global self-esteem.

### Sedentary behaviour

High numbers of hours sitting each day has been shown to be related to greater risk of chronic disease, cardiovascular disease, obesity and type 2 diabetes mellitus.

### How does physical activity help?

There appear to be a number of biological explanations that may account for the influence of physical activity on health. These include improved body and blood compositions, improved functioning of the mechanisms that deal with glucose, fat, free radicals, and insulin and other hormones, and an improved overall immune function. In addition, improved balance control, mobility and flexibility have a role to play in the reduced risk of falls and fractures.

### New information forthcoming

A new consensus statement article regarding Canadian guidelines for physical activity is expected from Canadian experts in the fall of 2009.

### More Info...

Warburton, DER, Katzmarzyk, PT, Rhodes, RE and Shephard, RJ. Evidence-informed physical activity guidelines for Canadian adults. *International Journal of Applied Physiology Nutrition and Metabolism*. 32 (2007) S16-S68.

CFLRI, Changing the Canadian Landscape... one step at a time. Results of the Physical Activity Monitor 2007. Bulletin no. 1. available at [http://www.cflri.ca/eng/statistics/surveys/documents/2007pam\\_b1.pdf](http://www.cflri.ca/eng/statistics/surveys/documents/2007pam_b1.pdf)



## How much is enough?

- Thirty minutes of moderate intensity (e.g., brisk walking) exercise on most days of the week appears to be associated with significant reductions in all-cause and cardiovascular related mortality and lower risk of hypertension.
- Higher durations appear to be associated with lower risks of colon and breast cancer and for the maintenance of body mass and the prevention of weight gain.
- Resistance and flexibility improvement lead to improved musculoskeletal fitness, reduced risk of osteoporosis, and are also recommended in the control of hypertension.
- Television watching should be reduced to less than 10 hours per week.