

The evidence for the benefits of physical activity

We continue to face the growing obesity epidemic and its fallout (increasing rates of diabetes, heart disease, osteoarthritis, and related depression and anxiety). We hear about the dieting industry and its reported successes, yet know all too well that many of our patients (not to mention ourselves) usually fail to maintain any weight loss they may have achieved.

Obtaining a medium level of cardiorespiratory fitness by engaging in moderate-level physical activity 5 days a week leads to a reduction in mortality from all causes in both genders independent of weight loss.

But is weight loss the goal we should be trying to achieve? An article by Ross and Janiszewski¹ references multiple studies showing that a reduction in waist circumference and consequently visceral fat (even without significant weight loss) that occurs as a result of moderate intensity physical activity leads to a reduction in several cardiovascular risk factors. In fact, obtaining a medium level of cardiorespiratory fitness by engaging in moderate-level physical activity 5 days a week leads to a reduction in mortality from all causes in both genders independent of weight loss. This level of physical activity can be obtained simply by walking at a rate that causes one's heart rate to elevate to only 60% of one's maximum heart rate (calculated by subtracting one's age from 220).

A recent meta-analysis by Kodama and colleagues² examined cardiorespiratory fitness as a predictor of all-cause mortality and cardiovascular events in healthy men and

women. A total of 33 studies were reviewed and a dose-response effect was found such that walking 4.8 to 6.4 kilometres per hour (3 to 4 miles per hour) resulted in significantly lower all-cause mortality and CHD/CVD events compared with those who did not obtain that level of physical fitness. Thus, getting off the couch and performing a moderate level of activity is beneficial.

A third piece of evidence was reported by Byberg and colleagues³ this year in the *British Medical Journal*. This study looked at the effect of total mortality after changes in leisure time physical activity in 50-year-old men. This cohort study determined mortality rates of 27.1, 23.6, and 18.4 per 1000 person years in groups with low, medium, and high physical activity respectively. More revealing was that men who increased their physical activity level between the ages of 50 and 60 were able to achieve a similar mortality rate to those with a high physical activity level after 10 years. This equalled a reduction in mortality of 50% compared with those who did not exercise and was similar to the reduction in mortality from quitting smoking over the same time interval. We have always told our patients who smoke that the best thing they can do for their health is to quit smoking. Based on this evidence, we can now also tell them they will equally improve their health by adopting a

physically active lifestyle.

Thus, the evidence is in! For the sake of our health, we *must* be physically active and we *must* promote this with our patients. Perhaps the simplest way to do this is to get a pedometer and aim to walk 10 000 steps per day, the equivalent of undertaking 30 to 60 minutes of moderate activity 5 days per week. Pedometers for our patients can be obtained through the WALK BC program as part of the Healthy Living Alliance Physical Activity strategy for BC (bchealthyliving.ca).

I am not a particular supporter of brand name companies but I confess to telling patients they should get something with the Nike trademark. When I say this, they usually give me with a puzzled look until I tell them that no matter what we might think about the company's manufacturing practices, at least it has the motto right—JUST DO IT! The evidence is in and we no longer have an excuse not to be physically active.

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References

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2. Kodama S, Saito K, Tanaka S, et al. Cardiorespiratory fitness as a quantitative predictor of all-cause mortality and cardiovascular events in healthy men and women, a meta-analysis. *JAMA* 2009; 301:2024-2035.
3. Byberg L, Melhus H, Gedeberg R, et al. Total mortality after changes in leisure time physical activity in 50 year old men: 35 year follow-up of population based cohort. *BMJ* 2009;338:b688.