

Would you like to live a long and healthy life? Then walk!

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According to accessible statistical data, an average American walks 3-4 thousand steps a day. This will probably also apply to an average Czech (or let's say an average employee or a student of our faculty).

It is clear that modern population does not meet the recommendation of the WHO of taking 10 thousand steps a day. It is true that this recommendation has been based more on experts' views rather than on solid scientific data. Nevertheless, Lancet Journal brings now a large meta-analysis of 15 other studies aiming at the correlation between the number of steps per day and mortality hazard.

In this short article, I will not describe the method or other details of the study, nonetheless its result is worth to mention. To put it briefly, the authors prove that the more steps we take the greater benefit for our health and lesser mortality hazard. The study brings new findings that the positive impact of walking on people younger than 60 can be seen already at 5000 steps a day and in case of people over 60 it is even 3000 steps a day. This is good news, because walking 10000 steps a day (i.e. about 5-6 km) is quite a lot and might be often difficult to reach. We could therefore get discouraged and give up walking completely. Now we see that it can be even less, however more steps we walk the better result we can expect (see graph 1). As we are rather lazy by nature and our positive motivation lasts only for a short time, I will also warn you. If you do not walk at all and sit most of the day, than the risk of damaging your health will definitely increase. Ok, this is said very mildly. Let's put it differently: the more you sit the sooner you die. We talk about so-called sitting disease. According to statistics, an average American sits for 11 hours a day and in the USA the sedentary lifestyle is responsible for 300K useless deaths per year and for expenses for the treatment of diseases connected with non-activity rising to a stunning amount of 24 billion dollars per year. These data are not surprising if we look at the result of the study published in British Medical Journal in 2019. According to this study, sitting more than 8 hours a day leads to sharp increase of mortality and the American 11 hours doubles the mortality hazard (see graph 2). Today's world likes abbreviations, so let's make one - sitting is mortal.

Sure, it is difficult to find time for systematic long walks in today's rush and overtechnical world and we cannot avoid sitting in our jobs and at home. Nevertheless, the good news is that just a little needs to be done to greatly improve the situation.

You will find here some tips from the Department of Sports Medicine and Active Health:

- Every step counts.
- Don't hesitate and start now, you don't need to break a world record, but try to increase the daily portion of steps.
- Don't use an elevator at work.
- When you wait somewhere (like for a bus, etc.), don't just stand but walk.

- Some people like to use the smart appliances which record their steps and progress, others prefer listening to music or audio books while walking and even phone calls can be made while walking.
- Instead of writing an email to your colleague from the office next door, you can go and tell him in person.
- Plan physical activity in your working schedule, some people prefer getting notifications on smart devices that they sit too long.
- Park your car farther away from your work, or simply walk to work.
- If you know that you will not walk much, then try to walk faster.
- Get a dog, who will make sure you will walk.
- If you find walking boring then find another physical activity, sport, work in the garden, etc. It is recommended that at least 150 min of moderately demanding physical activity should be performed per week. Moderately demanding means for instance fast walking (one is slightly out of breath but still can speak in whole sentences, feels warm and has faster heart rate).

I wish all readers of Facultas Nostra a beautiful spring and most of all a lot of physical activity. And if there comes a day when you are too lazy, then remember the saying that the one who doesn't find time for any physical activity will sooner or later have to find time for his disease.

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Graph 1 (source: Lancet Public Health 2022; 7: e219-28)

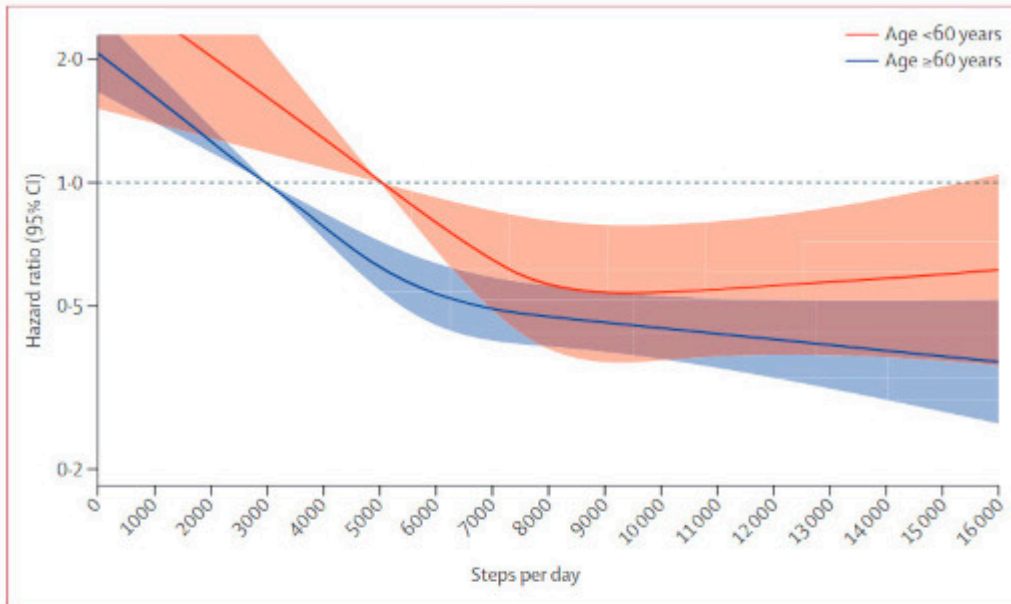


Figure 3: Dose-response association between steps per day and all-cause mortality, by age group
 Thick lines indicate hazard ratio estimates, with shaded areas showing 95% CIs. Reference set at the median of the medians in the lowest quartile group (age ≥60 years = 3000 steps per day and <60 years = 5000 steps per day). Model is adjusted for age, accelerometer wear time, race and ethnicity (if applicable), sex (if applicable), education or income, body-mass index, and study-specific variables for lifestyle, chronic conditions or risk factors, and general health status. $p_{interaction}=0.012$ by age group. 14 studies included in spline analysis, excluded Baltimore Longitudinal Study of Aging.¹⁹ The y-axis is on a log scale.

Graph 2 (source BMJ 2019; 366:14570)

