Couch Potatoes Arise!

By Chuck Dinerstein, MD, MBA — April 22, 2019

We all need to participate in physical activity to improve our general health and functioning. A new study looks at exercise and mortality from a more realistic view, trying to show how to balance sitting, the poster child of sedentary behavior, with vigorous or moderate physical activity, like exercise or sports. After all, there are only so many hours in a day to divide up.

The roughly 150,000 adults were participating in a large-scale Australian study of men and women age 45 or older and based their findings on a questionnaire of sitting, standing, sleeping, and exercise by participants on entry to the study. They were followed for approximately eight years, and all-cause and cardiovascular mortalities were reported. If you are looking for study’s limitations in addition to only asking about these activities a median of 8 years previously, the reliability (the answer is the same every time) and validity (the answer is what we are trying to measure) were both in the low to mid-range. So let’s take a qualitative rather than a quantitative view.

The reference for increased risk was the mortality for participants who sat for less than 4 hours a day and participated in more than 7 hours of highly active physical activity weekly. [1]

- Modeling both sitting and exercise yielded statistically significant findings for all-cause mortality, not for cardiovascular disease alone.
- Sitting more than 6 hours a day without any other physical activity was associated with the greatest mortality
- Substituting moderate or vigorous physical exercise for sitting reduced all-cause mortality.
- Substituting standing, for sitting had little impact. Sleeping, while it may involve tossing and turning, is not moderate or vigorous physical activity and replacing sitting with sleep did not improve mortality. (I am sure this also applied to multitasking when you both sat and slept simultaneously.)
The paper provides a wealth of seemingly useful numeric descriptors in an attempt to prescribe the right amount of activity to counteract sitting. But with acknowledged low reliability and validity to its “exposure variables,” sitting, standing, and exercise, the numbers remain fuzzy at best. As a result, there is still no prescribed amount of activity to counteract sedentary behavior; this is not precision medicine.

The need to exercise and reduce sitting is believed to be the best current prescription. The two alternatives, to reduce sitting without increasing exercise, or to increase exercise without reducing sitting did reduce risk by about the same amount – suggesting that even walking in place of sitting may be beneficial. And for those couch potatoes, walking to the kitchen for another snack is not what we had in mind.

[1] Vigorous physical activity makes you “breathe harder or puff and pant.”

Source: Sitting Time, Physical Activity, and Risk of Mortality in Adults  Journal of the American College of Cardiology DOI: 10.1016/j.jacc.2019.02.031

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