

Health Promotion and Wellness Special Interest Group
Academy of Geriatric Physical Therapy

Blast Cast

The Health Promotion and Wellness SIG shares the below summary research blast on “sitting disease”. A copy of this blast is also available on the SIG website @ <https://geriatricspt.org/special-interest-groups/health-promotion-wellness/>

If you’re not a Health Promotion and Wellness SIG member, please consider joining us by clicking on the “Join a SIG” on the right of the AGPT website.

Sitting Disease

Time spent in sitting has been associated with increased cardiovascular and all-cause mortality risk, regardless of physical activity level. This finding has lead national organizations such as the American Medical Association, American Cancer Society, and the American Physical Therapy Association to call for reduced sitting time and increased physical activity in the workplace and home. As physical therapists we are ideally positioned to help patients and members of our community’s combat “sitting disease”. The purpose of this blast cast is to provide some helpful resources including: (a) references representative of current scientific literature on this topic and (b) links to tools for educating and motivating patients on reducing sedentary behaviors.

Associations between sedentary behavior and mortality:

1. Ford E, Caspersen C. Sedentary behavior and cardiovascular disease: a review of prospective studies. *International Journal of Epidemiology* October 2012; 41(5):1338-1353. <http://ije.oxfordjournals.org/content/41/5/1338.short>
This review of contemporary literature suggests that sedentary behavior is associated with fatal and nonfatal cardiovascular disease, independent of voluntary moderate intensity physical activity. However, not all articles reviewed are in agreement. The authors discuss differences in study methodologies that may impact study conclusions including how sedentary behavior and the health of populations is measured.
2. Matthews C, George S, Schatzkin A, et al. Amount of time spent in sedentary behaviors and cause-specific mortality in US adults. *American Journal Of Clinical Nutrition* February 2012;95(2):437-445 9
<http://ajcn.nutrition.org/content/early/2012/01/04/ajcn.111.019620.short>
This study utilized the NIH-AARP Diet and Health Study database including

participants' age 50-71 years and concluded that there was an association between sedentary time and all-cause mortality after adjusting for voluntary physical activity, age, gender, race, education, diet, and smoking.

3. Patel A, Bernstein L, Thun M, et al. Leisure time spent sitting in relation to total mortality in a prospective cohort of US adults. *American Journal of Epidemiology* August 15, 2010; 172(4):419-429 11p.
<http://aje.oxfordjournals.org/content/172/4/419.short>
This study utilized the American Cancer Society's Cancer Prevention II database. The authors concluded that time spent sitting and time spent in physical activity are independently associated with all-cause mortality. The associations were stronger for cardiovascular disease mortality than cancer mortality.

Interventions for Sitting Disease

4. Chastin S, Egerton T, Leask C, Stamatakis E. Meta-analysis of the relationship between breaks in sedentary behavior and cardiometabolic health. *Obesity* September 2015;23(9):1800-1810.
<http://www.ncbi.nlm.nih.gov/pubmed/26308477>
In this meta-analysis the theory that interrupting sitting with bouts of light intensity physical activity may help control obesity was supported. Limitations of current research on this topic and suggestions for future research were described.

Resources for Therapists and Consumers

5. At APTA.org two resource on the dangers of sedentary behavior and benefits of sedentary breaks; one for consumers at www.moveforwardpt.com and one for physical therapists in PTin Motion.
<http://www.moveforwardpt.com/didyouknow/detail.aspx?cid=6780e6aa-db62-4fe9-aa1c-7202e7a720cd#.VkvWjLS4n-Z>
<http://www.apta.org/PTinMotion/News/2014/9/10/SittingAndWalking/>
6. At juststand.org. <http://www.juststand.org>
This site developed by a distributor of sit-to-stand desks includes an informative and eye-catching infographic on sitting disease. Consider providing this infographic to your patients and clients who may benefit.
Direct link to infographic: <http://www.juststand.org/tabid/674/language/en-US/default.aspx>

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