



MENTAL HEALTH

Sitting and Depression

A prescription for depression in a middle-aged woman should include getting up and moving around, according to findings from a 9-year study of 8,950 women taking part in the Australian Longitudinal Study on Women's Health. In that study, women who sat for > 7 hours a day and did no physical activity had 3 times the risk of depression than that of women who sat ≤ 4 hours a day and met physical activity guidelines.

Regular physical activity has long been associated with lowering the risk of depression. Sedentary behavior also may be important, because it has been associated with poor cardiovascular and metabolic health outcomes and shorter lifespan. However, little is known about its connection with depression. Further, no studies have examined sitting time and physical activity over multiple time points, and only 1 looked at the combined effects of sitting time and physical activity on depression, according to the authors of this report from the Victoria University in Melbourne, University of Queensland in Queensland and Queensland University of Technology, Brisbane in Queensland, all in Australia.

Sedentary behavior is typically defined as any waking activity charac-

terized by an energy expenditure of 1.5 Metabolic Equivalents of Task (METs) or less and a sitting or reclining posture. In this study, sitting time was assessed by the question: How many hours each day do you typically spend sitting down while doing things like visiting friends, driving, reading, watching television, or working at a desk or computer on a usual weekday or weekend day? The researchers assessed physical activity through questions about time spent walking briskly or in moderate-intensity and vigorous-intensity physical activity. They used the 10-item version of the Center for Epidemiological Studies Depression questionnaire to assess depressive symptoms.

The women completed mail surveys in 2001, 2004, 2007, and 2010. In 2001, when the women were aged 50 to 55 years, 1 in 5 had depressive symptoms, but that proportion actually declined over time. Overall, 5% reported symptoms at each of the 4 time points. Interestingly, while sitting time increased over time, so did physical activity: Higher proportions of women were sitting > 4 hours a day but also meeting physical activity guidelines at later surveys. In all, 8.5% of women sat for ≤ 4 hours a day and 24% met physical activity guidelines at all 4 time points.

Women who sat for > 4 to 7 hours a day were up to 1.5 times more likely to have depressive symptoms than

were women who sat for ≤ 4 hours a day. Women who did no physical activity were twice as likely to have depressive symptoms. The risk of depression rose gradually with more sitting time and less physical activity. Not surprisingly, women with depressive symptoms were less likely to increase their physical activity from none to some, or from some to meeting guidelines.

The researchers point out that their study differed from others in that they defined *sitting* more broadly—not only as watching TV or using a computer. They also noted that some research has suggested that “the association between sedentary behavior and mental health may differ by domain (eg, leisure, transport, or work) in the same way that associations between physical activity and depression can differ by domain.”

Only lack of physical activity was associated with an increased risk of future depressive symptoms. The researchers, noting that women with depressive symptoms were less likely to increase physical activity over time, described a “vicious circle whereby inactive women are more likely to become depressed and those who are depressed are less likely to increase physical activity.” ●

Source: van Uffelen JGZ, van Gellecum YR, Burton NW, Peeters G, Heesch KC, Brown WJ. *Am J Prev Med*. 2013;45(3):276-281.
doi: 10.1016/j.ampere.2013.04.0009.