

Interruption of sitting may cut acute postprandial response

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(HealthDay)—When individuals interrupt prolonged sitting with bouts of

light physical activity, postprandial insulin and glucose levels are reduced, according to a study published in the June issue of *Medicine & Science in Sports & Exercise*.

Joseph Henson, Ph.D., from NIHR Leicester Biomedical Research Center in the United Kingdom, and colleagues combined data from four similarly designed randomized acute cross-over trials involving 129 participants to identify predictors of favorable changes to postprandial [insulin](#) and [glucose levels](#) in response to prolonged sitting (6.5 hours) or prolonged sitting broken up with standing or light-intensity [physical activity](#) (five minutes every 30 minutes).

The researchers found that when individuals interrupted prolonged sitting with bouts of light physical activity, but not with standing, there was a reduction in postprandial insulin and glucose. If individuals were South Asian versus white European, were female versus male, or had a body mass index (BMI) ≥ 27.2 kg/m², the reductions in time-averaged postprandial insulin were more pronounced. The postprandial glucose response was modified by being female or having a BMI ≥ 27.2 kg/m². For a homeostatic model assessment of insulin resistance or age, no significant interactions were found.

"These results may be used to guide individualized tailored interventions in high-risk participants for whom breaking prolonged sitting time could be a viable and effective prevention strategy," the authors write.

More information: [Abstract/Full Text](#)

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