

Just Half an Hour of Less Sitting Each Day Can Improve Energy Metabolism

TURKU, FINLAND, October 14, 2025 /EINPresswire.com/ -- New study shows that just 30 minutes of less sitting each day can improve the body's ability to utilise fats and carbohydrates for energy production. Reducing sedentary behaviour can be particularly beneficial for people who are physically inactive and have an increased risk of heart diseases and type 2 diabetes.

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Postdoctoral Researcher Taru Garthwaite

As a result of excessive sitting and an unhealthy diet, energy intake may exceed the body's energy expenditure, increasing the risk of cardiovascular diseases and type 2 diabetes. Lifestyle habits also affect the body's ability to switch between fats and carbohydrates as a source of energy in different situations. This is called metabolic flexibility.

“A healthy body burns more fat at rest, but after meals and during high-intensity exercise, the main source of energy shifts to carbohydrates. If metabolic flexibility is impaired,

blood sugar and lipid levels can rise and, instead of being used for energy production, excess fat and sugars may be directed to storage,” explains Postdoctoral Researcher Taru Garthwaite from the [University of Turku](#), Finland.

The study conducted at the Turku PET Centre and the UKK Institute for Health Promotion Research involved 64 sedentary adults with multiple risk factors for cardiovascular disease and type 2 diabetes. The intervention group was instructed to reduce sitting by an hour each day by increasing standing and physical activity in the daily life, without starting intentional exercise training. The control group was instructed to continue their usual sedentary lifestyle. Sitting and physical activity were monitored with accelerometers for six months.

"Our results suggest encouragingly that reducing sedentary behaviour and increasing even light daily physical activity – for example, standing up for a phone call or taking short walks – can support metabolic health and potentially help prevent lifestyle diseases in risk groups," says Garthwaite.

Physically Inactive Individuals Can Benefit from Even a Small Increase in Physical Activity

The intervention group aiming to reduce sedentary behaviour managed to reduce sitting by an average of 40 minutes per day. However, not all the participants in the intervention group achieved the target, while some in the control group reduced their sedentary behaviour.

The researchers found no differences between the intervention and control groups in the participants' metabolic flexibility after six months. However, as there were significant differences between the participants within the groups in terms of reducing sedentary behaviour, the researchers also looked at the results based on the actual, achieved changes.

Those participants who successfully reduced sedentary time by at least half an hour showed improvements in metabolic flexibility and fat burning during light-intensity exercise compared to those who remained highly sedentary. In addition, the more the participant increased their standing time, the more their metabolic flexibility improved.

"However, the positive metabolic effects of reducing sedentary behaviour are likely to apply mainly to those who are physically inactive and already have excess weight and an elevated risk of disease. Even greater benefits can be achieved by following the physical activity recommendation of 2.5 hours of moderate-intensity activity each week, but even a small increase in physical activity is beneficial, especially for those who are physically inactive," encourages Garthwaite.

The study was published in the [Scandinavian Journal of Medicine & Science in Sports](#).

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