

UK study finds significant health benefits associated with standing



University of Chester pilot study employs Ergotron WorkFit Sit-Stand Workstations to compare cardiovascular and metabolic markers among office workers when standing vs. sitting

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Alex Black; Ergotron, UK (adjustable desks)
Debbie van der Meer; Animas, UK (blood glucose monitors)
Simon Atkinson; Club Management Partners, Harrowgate, UK (movement monitors)
Mark Jones; Technogym UK (accelerometers)
Colin Cartwright; Fitness ASSIST, Wrexham, UK (heart rate monitors)

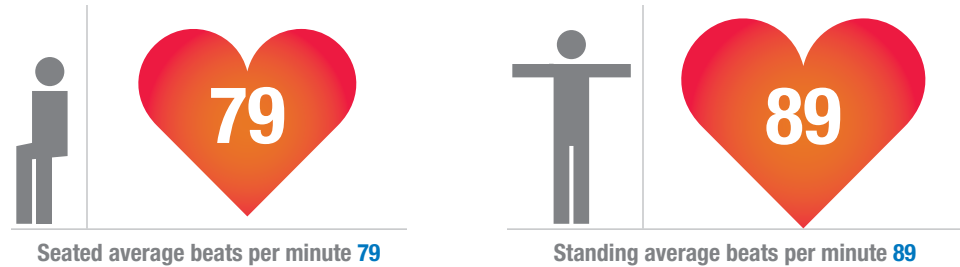
Equipment
Ergotron WorkFit-D, sit-stand adjustable desk
Timex heart rate monitor
Technogym movement monitor
Animas continuous blood glucose monitor
Cortex Metalyser, respiratory analysis system



The study, conducted by Dr. John Buckley at the University of Chester, was built upon previous findings indicating that prolonged sitting causes damage to joints which can lead to inflammation, stress and chronic pain and cardio-metabolic disease.

RESULTS – Heart Rate

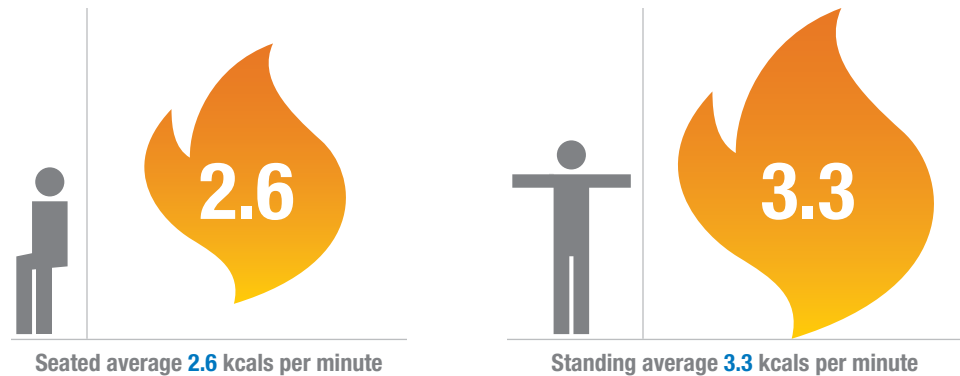
Significant increase in heart rate from seated to standing work = 10 bpm (p = .012)



RESULTS – Calorie (kcal*) Expenditure

Significant increase in calorie expenditure from seated to standing work = 0.7 kcals/minute (p = .014)

*A kcal is the amount of energy needed to raise the temperature of one kilogram of water by one degree Celsius



RESULTS – Blood Glucose**

**The concentration of sugar in the blood

SEATED

Peak (highest) 152 minutes after lunch started
Trough (lowest) 258 minutes after lunch started

STANDING

Peak (highest) 84 minutes after lunch started
Trough (lowest) 144 minutes after lunch started



The BBC/University of Chester researchers found that both heart rate and energy expenditure were raised significantly by standing work, and that sit-stand computer workstations are both feasible and effective at reducing sitting time in a work setting.

The BBC/University of Chester research, "The cardiovascular and metabolic benefits of standing desk work," was aired October 2013 in the "Trust Me I'm a Doctor" two-part series on BBC Two television in the UK.



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