CASE STUDY

Physical activity and energy expenditure across occupational categories

**BACKGROUND**

Physical activity is defined as bodily movements produced by skeletal muscles that result in energy expenditure. This study measured the amount of physical activity, based energy expenditure and other performance criteria that people use during a normal working day. The study focused on differences between occupational categories. The results of this study were used to develop a campaign to prevent sedentary behaviour.

**METHODS**

300 healthy adults (aged 18-65 years), employed full-time in Canton Basel in Switzerland, were enrolled in the study. Participants were stratified by occupational category according to the ISCO-88, and were then grouped into 3 classes (low, middle and high occupational activity). Data on duration of average daily activity, total and active energy expenditure, and daily step counts were collected over 7 consecutive days, using a Sense Wear Mini bracelet (no CE-marking). Participants were asked to wear the Sense Wear Mini bracelet during working hours. The primary outcome was difference in average daily active energy expenditure during working time between the occupational categories.

**CATEGORISER-FRAGEN**

Fällt das Forschungsprojekt in den Geltungsbereich des Humanforschungsgesetzes?
Ja

**BECAUSE**

This project was based on a study protocol that defines the exact procedures to be used. It included a relatively large number of persons and was not based on individual cases ("method-driven search for generalizable knowledge", defined as research by HRA). 300 healthy adults ("persons") employed full-time employed Canton Basel, Switzerland, were asked to register their energy expenditure during working time by wearing a Sense Wear Mini bracelet (no CE-marking). The investigator measured the difference in average daily active energy expenditure during working hours for the different occupational categories, defined according to ISCO-88 ("research concerning the structure and function of the human body").

Handelt es sich bei dem Forschungsprojekt um ein Projekt mit lebenden Personen?
Ja

**BECAUSE**

Healthy adults ("persons") employed full-time in the Canton Basel, Switzerland, registered their energy expenditure during working time by wearing a Sense Wear Mini bracelet.
Handelt es sich bei dem Forschungsprojekt um einen klinischen Versuch?
Nein

BECAUSE
Healthy adults ("persons") employed full-time in the Canton Basel, Switzerland, registered their energy expenditure during working time. The study aimed to measure the difference in average energy expenditure between occupational categories. No health related interventions (according the ClinO) were involved in this research project. Data on energy expenditure was collected in a standardized fashion, using a Sense Wear Mini bracelet (data collection instrument).

Werden im Forschungsprojekt Massnahmen angewendet welche für die teilnehmenden Personen mit minimalen Risiken und Belastungen verbunden sind?
Ja

BECAUSE
Healthy adults ("persons") employed full-time in the Canton Basel, Switzerland, registered their energy expenditure during working time. The study aimed to measure the difference in average energy expenditure between occupational categories. Participants were asked to wear a Sense Wear Mini bracelet, which transmitted the data. Wearing a bracelet involves minimal risks and stress for participants.