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PHYSICAL ACTIVITY, SEDENTARY TIME AND CARDIOMETABOLIC HEALTH IN HEAVY GOODS VEHICLE DRIVERS: A CROSS-SECTIONAL ANALYSIS

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Conflict of interest for all authors

None declared

Ethical Considerations

The main trial was approved by the Loughborough University Ethics Approvals (Human Participants) Sub-Committee (Reference: R17-P063).

Running Head title: Cardiometabolic health status of UK truck drivers

Clinical Significance

This study reveals that Heavy Goods Vehicle (HGV) drivers in the UK exhibit high-risk cardiometabolic health profiles. 88% were overweight or obese. Low levels of physical activity and high levels of sedentary time (12 hours per workday) were observed. Light physical activity was positively associated with markers of cardiometabolic health.

ABSTRACT:

Objective: Physical inactivity, prolonged sitting, and unhealthy dietary habits are common in Heavy Goods Vehicle (HGV) drivers. These factors increase risk of long-term health conditions.

Methods: 329 HGV drivers across 25 UK depots completed a health assessment, including questionnaire completion, and objectively measured anthropometrics, blood biomarkers, physical activity (PA) and sedentary behaviour.

Results: The sample demonstrated a high-risk cardiometabolic health profile. 88.1% were overweight or had obesity, 11.9% had pre-diabetes or diabetes. 28.3% had hypertension, 83.6% had clinically elevated circulating LDL-cholesterol concentrations (>2mmol/l), and 66.6% had high total cholesterol levels (>4 mmol/l). On workdays drivers accumulated 12 hrs/day of sitting, 1.7 hrs/day of light PA (LPA) and 9.8 mins/day of moderate-to-vigorous PA. Associations between LPA and cardiometabolic markers were observed.

Conclusion: This sample presents high levels of inactivity, overweight and obesity, and unhealthy cardiometabolic health profiles.

Key words: sitting, physical activity, obesity, chronic diseases, truck drivers, occupational health

INTRODUCTION

Within the logistics industry, HGV drivers are exposed to unique job demands due to long and variable working hours including, shift work, road traffic and tight delivery schedules, whilst facing a low level of perceived job control [1] . Unhealthy lifestyle behaviours, such as a lack of physical activity, prolonged sitting, poor dietary habits, irregular sleeping patterns, and high prevalences of smoking and alcohol consumption are widespread amongst this occupational group [2–5]. The combination of these poor lifestyle behaviours and working conditions increases the risk of multiple chronic conditions including obesity, type 2 diabetes, and cardiovascular disease (CVD) [6–8]. Additionally, UK HGV drivers have been identified as an ageing population [9], working in a highly masculine [1], and highly pressured environment, with perceived difficulty accessing medical services [1]. Resultingly, HGV driving has been considered as one of the most hazardous occupations worldwide [2,10], and is understaffed in the UK by ~100,000 drivers [11].

Previous research from a single depot (n=159) in the UK showed that 84% of drivers were overweight or had obesity, 43% had prediabetes or diabetes, and 34% had the metabolic syndrome [12]. Comparable data have been reported internationally, with 84% of American [13] and 89% of Australian truck drivers living with overweight or obesity [14]. The poor health profile seen in this occupational group presents a public safety concern, as drivers with obesity have a two-fold increased risk of having an accident compared to those without obesity [15].

Due to the nature of their occupation, HGV drivers exhibit high levels of sedentary behaviour and low levels of physical activity [12] which augment the risk of obesity and related metabolic disease. Excessive sitting time is an independent risk factor for premature mortality and

impaired cardiometabolic health; with the detrimental effects of high volumes of sitting only mitigated in those who exceed government physical activity guidelines [16].

To inform policies surrounding drivers‘ health and working practices within the logistics sector, further evidence objectively measuring the lifestyle behaviours and cardiometabolic health profile of HGV drivers are required. The sector is currently witnessing a shortage of drivers and limited objectively measured health data are available. Understanding the cardiometabolic health of UK HGV drivers is crucial to prevent further damage to the global supply chain and the UKs economic recovery from the COVID-19 pandemic [11].

This study sought to characterise the lifestyle behaviours during workdays and non-workdays, and cardiometabolic health profile of HGV drivers from 25 separate depots across the UK. Facilitated by our deeply phenotyped cohort, a secondary aim was to examine relationships between activity behaviours, markers of adiposity and associated cardiometabolic health risk factors.

METHODS

Study design, setting and participants

This cross-sectional study used the baseline data collected from participants taking part in the wider Structured Health Intervention For Truckers (SHIFT) study [17]. The SHIFT study is a cluster randomised controlled trial investigating the impact of a multicomponent behaviour change intervention on physical activity behaviours and cardiometabolic health in HGV

drivers. A brief description of the measures and procedures relevant to the present study are described below.

Data collection took place within the worksite setting of an international logistics company. Participants were full-time long-distance drivers, based across 25 participating satellite sites located throughout the UK. Depots were operating within the transport, retail, hospitality, healthcare, pharmaceutical, construction, oil and gas, and automotive industries. Participants were recruited into the study through each company's internal communications.

Key exclusion criteria for the study included a clinically diagnosed cardiovascular disease (heart and circulatory diseases, including coronary heart disease, angina, heart attack, congenital heart disease, stroke and vascular dementia) haemophilia, blood-borne viruses, or mobility limitations that prevented individuals from increasing their daily activity levels. Ethical approval was obtained from the Loughborough University Ethics Committee (Reference: R17-P063) and all participants provided written informed consent before experimental procedures commenced.

Measurements

Data were collected between January 2018 and July 2019 within a two-hour health assessment. This was conducted at the workplace, either at the beginning or end of the participant's working shift. For standardisation, all participants fasted for at least 4 hours before assessments. Measurements were taken by research staff trained in the study's Standard Operating Procedures.

Participants reported basic demographic information including date of birth, sex, ethnicity, highest level of education, marital status, working hours, shift pattern, years worked as a HGV driver and years worked at the partner company. Participants also reported their current health status, medication use, average estimated weekly alcohol intake and smoking status.

Height was measured without shoes using a portable stadiometer (Seca 206, Oxford, UK). Body mass and body fat percentage were assessed using bio-electrical-impedance scales (DC-360S, Tanita Corporation, Japan). Neck circumference was measured, and waist and hip circumferences were assessed following the WHO guidelines (WHO, 2011).

Resting blood pressure (BP) and heart rate were measured from the left arm after a 20-minute period of quiet sitting using an automated sphygmanometer (Omron HEM-907, Omron Corporation, Kyoto, Japan; [18]). BP was classified as normal (systolic blood pressure [SBP] <120mmHg and diastolic blood pressure [DBP] <80mmHg), prehypertensive (SBP: 120–139 mmHg OR DBP: 80–89 mmHg) or hypertensive (SBP >140 mmHg OR DBP >90 mmHg)[19]. Grip strength was assessed from both hands using the Takei Hand-Grip dynamometer (Takei Scientific Instruments Co., Ltd, Niigata City, Japan).

A heated (warm water) finger-prick blood sample was taken in accordance with WHO guidelines for drawing capillary blood samples [20]. Glycated haemoglobin (HbA1c) was measured using an A1CNow$^{®+}$ point-of-care analyser (PTS Diagnostics, Indianapolis, USA). Prediabetes was classified as a HbA1c value between 42-47 mmol/mol, and type 2 diabetes with a value of 48 mmol/mol or higher. Type 1 diabetes was identified via clinical diagnosis. Circulating concentrations of triglycerides (TGs), high-density lipoprotein (HDL) cholesterol

and total cholesterol (TC) were assessed using a Cardiocheck® point-of-care analyser (PTS Diagnostics, Indianapolis, USA). Low-density lipoprotein Cholesterol (LDL) was determined using Friedewald's formula [21].

Metabolic Syndrome was defined as central obesity (waist circumference ≥102cm [for men] and ≥88cm [for women]) plus any two of the following risk factors: raised BP (systolic ≥130 or diastolic ≥85 mmHg), raised TGs (≥1.7 mmol/L), reduced HDL (<1.0 mmol/L in males and 1.3 mmol/L in females) and HbA1c (≥42mmol/mol) [22]. The ten-year risk of having a cardiovascular event was calculated using the QRISK2 calculator [23].

Physical activity and sedentary behaviour

Time spent in light physical activity (LPA), moderate-to-vigorous physical activity (MVPA) and sedentary behaviour were assessed using the activPAL3 micro accelerometer (PAL Technologies Ltd, Glasgow UK). The device was worn on the midline anterior aspect of the upper thigh of participants' non-dominant side. activPALs were waterproofed (using a nitrile sleeve and Hypafix [BSN Medical] dressing) and attached to the leg using a second piece of Hypafix dressing. Participants were asked to wear it continuously over eight days following the health assessment. Participants recorded their waking, sleep, working and non-wear time using a daily log.

Data processing

activPALs were initialised and downloaded using manufacturer proprietary software (activPAL Professional v.7.2.38). Event files were generated and processed using the freely available

Processing PAL software (https://github.com/UOL-COLS/ProcessingPAL, version 1.3, University of Leicester, (Leicester UK)). The software seperates valid waking wear time from all other data using a validated algorithm [24]. Heatmaps of the included and excluded data were created to visually check the data for occasions where the algorithm may have been incorrect. On such occasion two researchers checked the daily logs independently against the heatmaps, and data were corrected if necessary. The first day of wear was removed for all participants. A valid day was defined as: ≥10 hours of valid waking wear time, ≥500 single-leg steps (i.e. ≥1000 steps/day), and <95% of time spent in any one behaviour (e.g. sitting, standing, or stepping) [24]. Participants were included in the analysis if they provided at least three valid days of data. For sub-analyses, participants had to provide valid data on at least two working days and one non-working day.

Outcomes of interest generated by the software included valid waking wear time, sitting, and standing time. Time in MVPA was derived using a step cadence of ≥100 steps per minute accumulated in bouts of at least one minute duration. LPA was calculated by subtracting sitting, standing and MVPA time from the valid waking wear time. For each variable the proportion of valid waking wear time spent in each behaviour was recorded. Additionally, the number of total daily steps, seated to upright transitions (sitting breaks) and time accumulated in prolonged bouts (lasting ≥30 and ≥60 minutes) were extracted.

Data analysis

All variables were checked for normality using Kolmogorov Smirnov tests along with histograms. Results for the whole sample were presented as either means and standard

deviations (SD), medians and interquartile ranges (IQR), or as percentages where relevant. In participants providing valid activPAL data on workdays and non-workdays, paired-sample t-tests or Wilcoxon-signed rank tests were used to compare outcome variables between workdays and non-workdays. Associations between activity behaviours and health outcomes were explored using one step linear regression models. Average sitting time, time in prolonged sitting bouts of >30 minutes, and >60 minutes, standing time, time in MVPA and LPA, and steps (in bouts per 1500 steps) were entered concurrently into a linear regression model. Variance inflation factor was checked for all regression analysis. The model was adjusted for sociodemographic characteristics, cardiometabolic and other medication and valid waking wear time. In addition, each model was adjusted for outcome relevant confounders such as behaviours on non workdays. The unstandardised beta coefficient (B) shows the effect of increasing one unit of time (hours) of sittting time or physical activity on cardiometabolic outcomes. It indicates that if sitting time or physical activity were increased, the cardiometabolic marker increases (if the value is positive) or decreases (if the value is negative) accordinlgy. Statistical analyses were conducted using SPSS V.24.

RESULTS

Participants

A total of 386 participants (98.7% male) were recruited into the trial and undertook the baseline health assessment. Of the 386, 329 participants (98.5% male) provided valid activPAL data and were included in the analyses reported herein. Table 1 shows participants' sociodemographic information, medical data and cardiometabolic markers for the sample with valid activPAL data (n=329) and those not complying to the activPAL wear protocol

(n=57). Participants were recruited across all shift patterns, however almost two-thirds began their shifts in the morning.

Cardiometabolic profiles

Across the sample, 88.1% of participants were overweight or had obesity, 6.1% had diabetes (type 1 and 2) and 5.8% had pre-diabetes. More than half of the sample had pre-hypertension (51.4%) or hypertension (28.3%). In addition, 83.6% had clinically elevated circulating LDL-cholesterol concentrations (>2mmol/l), and 66.6% had high total cholesterol levels (>4mmol/l). In terms of lifestyle behaviours, 17.6% were current smokers, and 24.6% consumed 14 or more units of alcohol per week. Differences between those providing valid activPAL data (n=329) and those not providing valid data (n=57) are presented in table 1.

-TABLE 1-

Sitting, standing and time in physical activity

Table 2 details physical activity and sitting data overall (n=329) and separately for workdays and non-workdays (n=291). Waking wear time was higher on workdays compared to non-workdays. Sitting time was greater on workdays, whilst standing time was greater on non-workdays. However, participants recorded a higher step count and more time in LPA on workdays. They also broke up their sitting time more frequently, although the time spent in long sitting bouts (>60minutes) was higher on workdays than non-workdays.

-TABLE 2-

Associations between sitting, physical activity and markers of cardiometabolic health

Increasing the total time spent in LPA by one unit of time (one hour) showed a decrease in BMI, waist circumference, HbA1c and Triglycerides and an increase in LDL, HDL and total Cholesterol (Table 3). There were no effects on neck circumference, systolic and diastolic blood pressure in fully adjusted models.

No Relationships were observed in fully adjusted models between sitting time, standing time, time spent in prolonged sitting bouts (>30 mins and >60 mins) and daily steps and markers of cardiometabolic health, and limited associations were observed with MVPA (Supplementary Tables 1-6).

-TABLE 3

DISCUSSION

This study has phenotyped the activity behaviours and cardiometabolic health profile of a large sample of HGV drivers from across 25 transport depots in the Midlands area of the UK. Findings from this geographically diverse sample demonstrate that overweight and obesity, excessive sedentariness, and markers of poor cadiometabolic health are highly prevalent in this sample of drivers. Due to the nature of their occupation, participants spent 70% (12h) of their day sitting on workdays, and there was no evidence that drivers attempted to compensate for this by being more active on non-workdays. In fact, participants accumulated fewer daily steps and less time in LPA on non-workdays. A further novel finding of this study were the many beneficial associations seen between time in LPA and markers of cardiometabolic health, suggesting that the promotion of light intensity ambulation could be an effective health promotion strategy in this occupational group.

One of the most notable findings in this study was the high prevalence of individuals who were overweight or had obesity, greater than that seen in age-matched males (45-54 years) within the general UK population (88% vs 79%) [25]. This prevalence exceeds that previously reported in other driver cohorts within Europe [12,26,27], which further highlights this concern. Higher numbers have been found in US drivers [13,28,29]. Worryingly, the proportion of drivers with severe obesity (BMI ≥40 kg/m^2) was also high, being twice as prevalent (4% vs 2%) compared with age-matched males in the UK [25]. These figures are concerning because obesity is a causal antecedent to many long-term health conditions and is associated with reduced life expectancy. Moreover, given that HGV drivers with obesity are twice as likely to have a road accident [15], our data highlight the urgent need for effective weight management interventions in this occupational group.

Being overweight and having obesity develop owing to chronic positive energy imbalance. Although movement influences total daily energy expenditure, dietary intake has a much greater impact on energy balance and weight control. Previous research has shown that many HGV drivers consume poor quality, energy dense diets and frequently snack whilst on the road [14,30]. Furthermore, it is widely recognised that truck stops/motorway services do not typically provide healthy food options [4]. Such barriers make it challenging for drivers to habitually consume healthy diets. Preliminary data indicates that targeted weight-loss interventions may help drivers to improve their diet and lose weight, however further research is necessary [29]. Nonethless, there is a pressing need to improve drivers' understanding about nutrition, and to undertake a structured review of food provision within the wider transport and logistics sector.

Insulin resistance develops in response to excess adiposity, which is a trigger for the metabolic syndrome. Interestingly, whilst the prevalence of hypertension in our study was similar to that within the general UK adult male population (aged 45-54 years) [25], and to previous reports [12], the prevalence of diabetes (type 1 and 2) and high total cholesterol were lower in our sample. This may relate to the "healthy worker effect", as drivers with poor health can lose their licence. The lower prevalence of diabetes reported here may be because we measured HbA1c rather than blood glucose. International studies in truck drivers using HbA1c outcomes present similar values to those seen in our sample [31,32].

The lower rates of prevalence of high total cholesterol in comparison to the general UK adult male population aged 45-54 (29.5% vs 55.5% >5mmol/l) may have been affected by the use

of medication. Many drivers reported taking cardiometabolic-related medication (to treat high cholesterol (9.1%), high blood pressure (10.3%), Diabetes (5.2%), and other health problems (24.6%)) which could have an impact on our data.

Truck drivers exhibit a greater mean number of cardiovascular disease risk factors compared to the general population [33]. When aggregating our sample's cardiovascular risk profile (QRISK), it was apparent that ~23% possess a greater than 10% risk of a cardiac event such as a heart attack or arrhythmia within the next 10 years. Such an event, whilst driving could result in a road traffic collision and have serious consequences for other road users and is therefore of public concern. Urgent interventional research, education programmes, health promotion policies and campaigns to tackle obesity, and associated comorbidities, are needed in this high-risk occupational group.

Our sample is representative in terms of mean age (48 years) and sex distribution (99% male) of UK truck drivers, who have been identified as an ageing occupational population [9]. Given the current, and increasing, shortfall in HGV drivers in the UK [11], the government and sector urgently need to address the poor health profile of this ageing workforce to attract younger employees to the role. The already challenging working conditions are likely to be only exacerbated currently, as the low number of drivers have to compensate for driver shortages by expanding their own working hours, as relaxations in drivers' hours rules have come into place as a result of COVID-19 and Brexit [34].

Prolonged sitting represents another serious health concern. The links between sedentary time, and morbidity and mortality have been widely reported in epidemiological studies

[16,35]. Device-assessed sitting time revealed that this sample of drivers accumulated a median 12 hours of sitting on workdays (70.4% of valid waking wear time) and 10 hours on non-workdays (63.2% of valid waking wear time). This is higher than that observed in other occupations such as office workers who accumulate around 8.5 hours of sitting per workday and around 5.5 hours of sitting per non-workday [36]. A total sitting time of 11 hours per day (67.8% of valid waking wear time) is also much higher than that observed in the general population (9 hours per day) [37]. However, this could have been influenced by a higher waking wear time of our drivers (14.3 vs 16.6 hours/day)[37]. Compared with other driving populations, similar results have been observed in studies with HGV drivers [12,38], and bus drivers using different device-based measures [39]. Previous research shows that workers with sedentary occupations were more likely to be sufficiently active during their leisure time [40] which could not be confirmed within our sample, who had reduced activity levels on non-workdays. However, this could also be caused by the difference in valid waking wear time as there was almost a two-hour difference (15.2 vs 17.4 hours/ day).

Numerous studies suggest that regularly breaking up sedentary time might be a beneficial factor for some cardiometabolic health outcomes in at-risk populations [41]. Furthermore, replacing long bouts of sitting (>30 minutes) with short bouts of sitting ($\leq$5 minutes) seems to positively impact waist circumference, body fat percentage and BMI [42]. Due to the nature of the job, HGV drivers are exposed to limited opportunities to regularly break up their sitting time. The present results show that they accumulate significantly higher amounts of prolonged sitting bouts (>30 and >60 min) on workdays (46% and 31 % of their valid waking wear time) compared to non-workdays (33% and 19% of their valid waking wear time).

Much lower levels of physical activity have been found in the present sample in comparison to the general population (96 vs 289.1 minutes of LPA/ day and 10.5 vs 30.3 minutes of MVPA/ day) [37]. However, the data in this study were collected with different device-based measurement tools. We were able to confirm the validity of this device in our particular sample, by demonstrating that within the HGV cab, the activPAL is not affected by vehicle vibrations (data not shown). Compared to a previous study with UK-based HGV drivers [12] using the same measurement tool, similar but slightly lower levels of daily time in MVPA on workdays were observed in the present sample (10 vs 13 mins/day). Findings for LPA were also similar but higher in the previous sample on workdays (1.4 vs 1.7 hours/day). These findings suggest that the majority of drivers within this sample do not comply with the PA guidelines of at least 150 minutes of moderate activity per week [43]. Working long hours with irregular start times make it difficult to be active on workdays. However, participants were equally inactive on their non-workdays. Many beneficial associations were seen between time in LPA and markers of cardiometabolic health, suggesting that the promotion of LPA (via activities like walking) could be a feasible intervention approach which drivers could adopt on both workdays and non-workdays.

Key strengths of this study include the large and diverse sample of drivers who were recruited from 25 sites across the midlands area in the UK, operating through sub-contracts across eight different industries. In particular, we were able to undertake detailed physical measurements of drivers, as well as profile their device-assessed activity behaviours, on both workdays and non-workdays. The key limitation worthy of recognition was the cross-sectional design. Additionally, self-selection bias could have had an impact on the sample of participants as the health and activity status of the drivers might have affected their willingness to participate. A

potential healthy worker recruitment effect could have influenced the outcomes as people on sick leave were not recruited.

Conclusion

Findings from the present study add to the current limited evidence-based literature on the health profile and activity behaviours of truck drivers in the UK. This paper highlights a high level of overweight and obesity, at-risk cardiometabolic health profiles, and a high level of sitting and physical inactivity in this sample. Interventions and policy changes are urgently needed to reduce sitting time and increase physical activity, and to improve the overall cardiometabolic health profile in this at-risk occupational group, whose health status can have a direct impact on the safety of other road users.

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Table 1 Demographic, anthropometric and cardiometabolic health data for participants with (compliers) verses without (non-compliers) valid activPAL data		
	Compliers (n=329) Median (IQR), Mean (SD) or %	**Non-compliers (n=57) Median (IQR), Mean (SD) or %**
Demographics		
Age (years)	49 (41, 55)*	49 (40, 54)*
Average working hours/week	48(45, 50)*	48 (45, 50)*
Ethnicity (%) White European Other	 93.3 6.7	 94.7 5.3
Highest level of education (%) GCSEs A-Level University Graduate Other	 60.5 9.7 6.1 18.2	 73.7 8.8 3.6 13.9
Shift patterns (%) Morning Afternoon Night Rotating Shifts	 60.5 13.7 18.2 7.6	 78.9 1.8 14.0 5.3
Medical Information (%)		
Cholesterol medication	9.1	3.5
Blood pressure medication	10.3	7.0
Diabetes medication	5.2	1.8
Other medication	24.6	12.3
Q-Risk (%) Less than 10% 10% or over 20% or over	 77.2 17.9 4.9	 70.2 28.0 1.8
Anthropometric measures		
Body fat (%)	27 (6)	28 (6)
Neck circumference (cm)	40.5 (38.3, 42.4)*	41.0 (39.2, 42.7)*
Waist circumference (cm)	103.0 (94.1, 111.2)*	107.2 (98.0, 119.5)*
Waist-hip ratio	0.97 (0.92, 1.00)*	0.99 (0.95, 1.04)*

BMI (kg/m^2) Normal weight (%) Overweight (%) Obese (%) Class I (30 – 34.9) Class II (35 – 39.9) Class III (≥ 40)	29.6 (26.9, 32.8)* 11.9 41.6 46.5 31.3 11.2 4.0	31.3 (28.2, 34.4)* 7.1 33.3 59.6 36.8 17.5 5.3
Grip strength (kg)	50.5 (8.7)	50.0 (7.0)
Blood pressure		
Systolic blood pressure (mm Hg)	130 (121, 139)*	132 (125, 141)*
Diastolic blood pressure (mm Hg)	82 (76, 89)*	84 (79, 91)*
Heart rate (beats/ min)	67 (10)	69 (12)
Blood markers		
HbA1c (mmol/mol)	35 (32, 38)*	33 (31, 37)*
HDL-Cholesterol (mmol/l)	1.13 (0.97, 1.40)*	1.10 (0.94, 1.30)*
LDL-Cholesterol (mmol/l)	2.87 (0.86)	3.02 (0.82)
Total Cholesterol (mmol/l)	4.42 (0.99)	4.52 (0.96)
Triglyceride (mmol/l)	1.37 (0.95, 2.09)*	1.40 (1.04, 2.03)*
Metabolic Syndrome (%)	28.3	29.8
Lifestyle behaviours		
Alcohol units/ week (n=353)~	8.1 (8.3)	8.9 (9.5)
Cigarettes/week (n=77)~	17 (40)	26 (45)

*Data presented with the median (IQR)

~People who do not drink alcohol or smoke have been excluded from the descriptive analysis for lifestyle behaviours

Table 2 Physical activity and sitting behaviours for the total sample across all valid days, and separately for those providing valid data on both workdays and non-workdays

	Total sample, summary across all days (N=329)	Workdays (N=291)	Non-workdays (N=291)	Difference p value (work vs. non-workdays)
Wear time (days)	8 (7, 8)*	5 (4, 6)*	2 (2, 3)*	**<0.001**
Waking time (hours/ day)	16.6 (1.1)	17.2 (1.2)	15.4 (1.5)	**<0.001**
Time spent sitting (hours/ day)	11.1 (10.2, 12.1)*	12.0 (11.0, 13.0)*	9.7 (8.0, 11.2)*	**<0.001**
Proportion of time spent sitting (%) of waking hours	67.8 (62.3, 72.1)*	70.4 (66.2, 74.0)*	63.2 (54.4, 70.8)*	**<0.001**
Time spent standing (hours/ day)	3.4 (2.9, 4.0)*	3.1 (2.6, 3.7)*	3.8 (2.9, 4.7)*	**<0.001**
Proportion of time spent standing (%) of waking hours	20.6 (17.4, 24.1)*	18.1 (15.0, 21.4)*	25.0 (19.0, 31.2)*	**<0.001**
Time spent in LPA (hours/ day)	1.6 (1.3, 2.1)*	1.7 (1.4, 2.1)*	1.5 (1.1, 1.9)*	**<0.001**
Proportion of time spent in LPA (%) of waking hours	10.2 (7.9, 12.8)*	9.8 (8.1, 12.3)*	9.8 (7.4, 12.4)*	0.223
Time spent in MVPA (min/day)	10.5 (5.8, 19.5)*	9.8 (6.1, 16.3)*	8.0 (2.6, 22.5)*	0.845
Proportion of time spent in MVPA (%) of waking hours	1.1 (0.6, 1.7)*	1.0 (0.6, 1.6)*	0.9 (0.3, 2.4)*	0.166
Steps/day	8592 (6964, 10704)*	8770 (7209, 11003)*	7682 (5496, 10561)*	**<0.001**
Sit to upright transitions (n)	47.0 (39.0, 58.0)*	47.5 (39.0, 57.3)*	46.0 (35.5, 57.3)*	**0.008**
Sitting bouts >30 minutes (n)	5.0 (4.0, 6.0)*	6.6 (5.6, 7.6)*	5.3 (4.0, 6.7)*	**<0.001**
Total sitting time accumulated in	7.0 (5.5, 8.1)*	8.1 (6.6, 9.2)*	5.1 (3.7, 6.8)*	**<0.001**

>30-minute bouts (hours)				
Proportion of total sitting time accumulated in >30-minute bouts (%) of waking hours	42.2 (34.2, 48.9)*	46.4 (38.3, 53.6)*	33.0 (25.0, 43.9)*	**<0.001**
Sitting bouts >60 minutes (n)	2.0 (1.0, 2.0)*	3.0 (2.3, 3.8)*	1.7 (1.0, 2.5)*	**<0.001**
Total sitting time accumulated in > 60-minute bouts (hours)	4.3 (1.9)	5.3 (2.3)	3.0 (2.1)	**<0.001**
Proportion of total sitting time accumulated in >60-minute bouts (%) of waking hours	26.0 (10.9)	30.5 (12.8)	19.0 (13.3)	**<0.001**

Table 3 Associations between LPA (hours/day) and markers of cardiometabolic health						
	Overall associations		Workday associations		Non-workday associations	
	B (95% CI) Model 1	B (95% CI) Model 2	B (95% CI) Model 1	B (95% CI) Model 2	B (95% CI) Model 1	B (95% CI) Model 2
BMI	-0.971* (-1.771, -0.171)	-1.097* (-1.971, -0.224)	-1.193* (-2.265, -0.121)	-1.144* (-2.217, 0.070)	0.563 (-0.462, 1.587)	0.649 (-0.385, 1.682)
Waist circumference	-3.127** (-5.194, -1.060)	-3.592** (-5.845, -1.338)	-2.746* (-5.524, -0.032)	-2.588 (-5.366, 0.190)	0.838 (-1.815, 3.490)	1.029 (-1.648, 3.707)
Neck circumference	-0.459 (-0.970, 0.052)	-0.430 (-0.988, 0.128)	-0.160 (-0.842, 0.523)	-0.137 (-0.821, 0.548)	0.035 (-0.618, 0.688)	0.115 (-0.542, 0.772)
Systolic Blood pressure	-0.733 (-3.211, 1.744)	0.203 (-2.490, 2.896)	1.046 (-2.287, 4.378)	0.995 (-2.352, 4.341)	0.803 (-2.382, 3.987)	1.042 (-2.172, 4.255)
Diastolic Blood pressure	-0.838 (-2.573, 0.897)	-0.187 (-2.073, 1.699)	-0.441 (-2.745, 1.864	-0.420 (-2.734, 1.895)	-0.365 (-1.837, 2.566)	-0.394 (-1.833, 2.620)
HbA1c	-1.601* (-2.957, -0.246)	-2.121* (-3.594, -0.648)	-1.222 (-2.974, 0.530)	-1.165 (-2.922, 0.593)	0.262 (-1.414, 1.938)	-0.406 (-1.284, 2.097)
Triglycerides	-0.204* (-0.383, -0.025)	-0.202* (-0.397, -0.006)	-0.121 (-0.358, 0.116)	-0.115 (-0.353, 0.123)	-0.127 (-0.354, 0.099)	-0.123 (-0.352, 0.106)
LDL	0.074 (-0.064, 0.212)	0.160* (0.011, 0.308)	-0.045 (-0.225, 0.134)	-0.051 (-0.231, 0.129)	0.104 (-0.067, 0.276)	0.078 (-0.094, 0.249)
HDL	0.101*** (0.040, 0.162)	0.103** (0.036, 0.169)	0.107** (0.029, 0.186)	0.105** (0.026, 0.184)	-0.022 (-0.097, 0.053)	-0.021 (-0.097, 0.055)
Total Cholesterol	0.115 (-0.042, 0.272)	0.206* (0.037, 0.375)	0.006 (-0.194, 0.207)	0.003 (-0.199, 0.204)	0.074 (-0.117, 0.266)	0.049 (-0.144, 0.242)

Supplementary tables

Supplementary Table 1 Associations between sitting time (hours/day) and markers of cardiometabolic health

	Overall associations		Workday associations		Non-workday associations	
	B (95% CI) Model 1	B (95% CI) Model 2	B (95% CI) Model 1	B (95% CI) Model 2	B (95% CI) Model 1	B (95% CI) Model 2
BMI	0.339 (-0.077, 0.755)	-0.135 (-0.769, 0.499)	0.010 (-0.477, 0.496)	0.010 (-0.492, 0.513)	0.185 (-0.155, 0.526)	0.114 (-0.232, 0.459)
Waist circumference	1.296* (0.222, 2.370)	0.005 (-1.633, 1.642)	0.410 (-0.848, 1.669)	0.292 (-1.008, 1.591)	0.639 (-0.240, 1.519)	0.455 (-0.438, 1.348)
Neck circumference	0.243 (-0.021, 0.507)	0.197 (-0.209, 0.602)	0.070 (-0.237, 0.376)	0.077 (-0.240, 0.394)	0.178 (-0.037, 0.393)	0.157 (-0.062, 0.377)
Systolic Blood pressure	0.156 (-1.126, 1.437)	0.431 (-1.535, 2.397)	-0.216 (-1.721, 1.289)	-0.046 (-1.599, 1.507)	0.018 (-1.036, 1.072)	0.093 (-0.984, 1.170)
Diastolic Blood pressure	0.148 (-0.750, 1.046)	0.111 (-1.267, 1.490)	0.386 (-0.653, 1.425)	0.368 (-0.706, 1.441)	-0.059 (-0.786, 0.668)	-0.056 (-0.799, 0.687)
HbA1c	0.975**(0.277, 1.674)	0.523 (-0.546, 1.593)	0.604 (-0.183, 1.391)	0.635 (-0.178, 1.448)	0.191 (-0.360, 0.743)	0.162 (-0.401, 0.725)
Triglycerides	0.107*(0.014, 0.200)	0.077 (-0.065, 0.219)	0.062 (-0.045, 0.168)	0.054 (-0.056, 0.164)	0.041 (-0.033, 0.116)	0.038 (-0.039, 0.114)
LDL	-0.059 (-0.130, 0.012)	-0.011 (-0.119, 0.098)	-0.011 (-0.092, 0.070)	0.003 (-0.080, 0.087)	-0.010 (-0.067, 0.046)	-0.010 (-0.068, 0.048)
HDL	-0.049** (-0.080, -0.017)	-0.026 (-0.075, 0.022)	-0.040* (-0.076, -0.005)	-0.040* (-0.077, -0.004)	-0.010 (-0.035, 0.015)	-0.005 (-0.031, 0.020)
Total Cholesterol	-0.083*(-0.164, -0.003)	-0.029 (-0.153, 0.095)	-0.038 (-0.129, 0.052)	-0.028 (-0.121, 0.066)	-0.010 (-0.073, 0.054)	-0.007 (-0.072, 0.058)

Data have been presented with the unstandardised Beta coefficient (B) and the Confidence Intervall (CI). Coefficients represent the SD difference in the outcome per SD unit difference in the exposure.
Model 1 has been adjusted for **age**, marital status, ethnicity, education, smoking status, total years working at the company, total years working as a HGV driver, working hours per week, cardiometabolic and other medication and appropriate waking wear time. Workday associations have been adjusted for sitting time on non-workdays. Non-workdays associations have been adjusted for sitting time on workdays.
Model 2 has additionally been accordingly adjusted for overall stepping time, the workday associations for stepping time on non-workdays and the non-workday associations for stepping time on workdays.
*p≤0.05, **P≤0.01, ***p≤0.001

Supplementary Table 2 Associations between sitting bouts time (>30 minutes) and markers of cardiometabolic health						
	Overall associations		Workday associations		Non-workday associations	
	B (95% CI) Model 1	B (95% CI) Model 2	B (95% CI) Model 1	B (95% CI) Model 2	B (95% CI) Model 1	B (95% CI) Model 2
BMI	0.102 (-0.188, 0.393)	-0.252 (-0.637, 0.134)	-0.037 (-0.318, 0.244)	-0.038 (-0.326, 0.250)	0.071 (-0.200, 0.343)	0.004 (-0.272, 0.281)
Waist circumference	0.508 (-0.245, 1.260)	-0.511 (-1.507, 0.485)	0.032 (-0.695, 0.760)	-0.037 (-0.781, 0.707)	0.314 (-0.388, 1.015)	0.142 (-0.573, 0.857)
Neck circumference	0.025 (-0.160, 0.210)	-0.130 (-0.377, 0.117)	-0.060 (-0.237, 0.117)	-0.061 (-0.243, 0.120)	0.043 (-0.128, 0.215	0.021 (-0.155, 0.197)
Systolic Blood pressure	0.191 (-0.701, 1.083)	0.374 (-0.823, 1.571)	0.065 (-0.805, 0.934)	0.157 (-0.732, 1.046)	0.045 (-0.794, 0.884)	0.114 (-0.748, 0.975)
Diastolic Blood pressure	0.115 (-0.510, 0.740)	0.096 (-0.744, 0.936)	0.294 (-0.305, 0.893)	0.287 (-0.328, 0.901)	-0.053 (-0.631, 0.526)	-0.050 (-0.644, 0.544)
HbA1c	0.486 (-0.003, 0.975)	0.047 (-0.606, 0.699)	0.298 (-0.157, 0.753)	0.308 (-0.158, 0.774)	0.097 (-0.342, 0.536)	0.069 (-0.382, 0.519)
Triglycerides	0.068*(0.003, 0.133)	0.041 (-0.046, 0.127)	0.039 (-0.023, 0.100)	0.035 (-0.028, 0.098)	0.046 (-0.014, 0.105)	0.043 (-0.018, 0.104)
LDL	-0.030 (-0.079, 0.020)	0.006 (-0.060, 0.073)	0.002 (-0.044, 0.049)	0.010 (-0.038, 0.057)	0.011 (-0.034, 0.056)	0.012 (-0.034, 0.058)
HDL	-0.021 (-0.043, 0.001)	0.003 (-0.026, 0.033)	-0.008 (-0.029, 0.012)	-0.007 (-0.028, 0.014)	-0.013 (-0.033, 0.007)	-0.009 (-0.029, 0.012)
Total Cholesterol	-0.044 (-0.101, 0.012)	-0.001 (-0.077, 0.074)	-0.004 (-0.056, 0.049)	0.002 (-0.051, 0.056)	0.001 (-0.049, 0.052)	0.004 (-0.047, 0.056)

Data have been presented with the unstandardised Beta coefficient (B) and the Confidence Intervall (CI). Coefficients represent the SD difference in the outcome per SD unit difference in the exposure.
Model 1 has been adjusted for age, marital status, ethnicity, education, smoking status, total years working at the company, total years working as a HGV driver, working hours per week, cardiometabolic and other medication and appropriate waking wear time. Workday associations have been adjusted for sitting time on non-workdays. Non-workdays associations have been adjusted for sitting time on workdays.
Model 2 has additionally been accordingly adjusted for overall stepping time, the workday associations for stepping time on non-workdays and the non-workday associations for stepping time on workdays.
*p≤0.05, **P≤0.01, ***p≤0.001

Supplementary Table 3 Associations between sitting bouts time (>60 minutes) and markers of cardiometabolic health						
	Overall associations		Workday associations		Non-workday associations	
	B (95% CI) Model 1	B (95% CI) Model 2	B (95% CI) Model 1	B (95% CI) Model 2	B (95% CI) Model 1	B (95% CI) Model 2
BMI	0.077 (-0.227, 0.381)	-0.206 (-0.572, 0.160)	-0.016 (-0.289, 0.256)	-0.017 (-0.293, 0.260)	0.090 (-0.207, 0.388)	0.034 (-0.266, 0.334)
Waist circumference	0.421 (-0.367, 1.209)	-0.421 (-1.366, 0.524)	0.047 (-0.659, 0.753)	-0.002 (-0.718, 0.713)	0.307 (-0.462, 1.076)	0.158 (-0.618, 0.934)
Neck circumference	-0.020 (-0.213, 0.174)	-0.157 (-0.391, 0.077)	-0.051 (-0.223, 0.121)	-0.052 (-0.226, 0.123)	-0.008 (-0.197, 0.180)	-0.029 (-0.220, 0.162)
Systolic Blood pressure	0.137 (-0.797, 1.071)	0.225 (-0.911, 1.362)	0.023 (-0.820, 0.866)	0.088 (-0.767, 0.942)	0.185 (-0.734, 1.104)	0.247 (-0.687, 1.180)
Diastolic Blood pressure	0.233 (-0.421, 0.887)	0.263 (-0.533, 1.059)	0.306 (-0.275, 0.888)	0.299 (-0.291, 0.889)	0.280 (-0.353, 0.913)	0.293 (-0.351, 0.937)
HbA1c	0.218 (-0.296, 0.733)	-0.284 (-0.902, 0.334)	0.045 (-0.397, 0.488)	0.044 (-0.405, 0.493)	0.244 (-0.236, 0.724)	0.224 (-0.264, 0.712)
Triglycerides	0.083*(0.016, 0.151)	0.063 (-0.019, 0.145)	0.049 (-0.011, 0.108)	0.046 (-0.014, 0.107)	0.064 (-0.001, 0.128)	0.062 (-0.004, 0.128)
LDL	-0.020 (-0.072, 0.032)	0.015 (-0.048, 0.077)	0.001 (-0.044, 0.047)	0.006 (-0.039, 0.052)	0.020 (-0.029, 0.070)	0.021 (-0.029, 0.072)
HDL	-0.022 (-0.045, 0.001)	-0.002 (-0.030, 0.026)	-0.009 (-0.030, 0.011)	-0.009 (-0.029, 0.012)	-0.014 (-0.036, 0.008)	-0.011 (-0.033, 0.012)
Total Cholesterol	-0.027 (-0.086, 0.032)	0.017 (-0.054, 0.089)	-0.004 (-0.055, 0.046)	0.000 (-0.051, 0.052)	0.017 (-0.039, 0.072)	0.020 (-0.037, 0.076)

Data have been presented with the unstandardised Beta coefficient (B) and the Confidence Intervall (CI). Coefficients represent the SD difference in the outcome per SD unit difference in the exposure.
Model 1 has been adjusted for age, marital status, ethnicity, education, smoking status, total years working at the company, total years working as a HGV driver, working hours per week, cardiometabolic and other medication and appropriate waking wear time. Workday associations have been adjusted for sitting time on non-workdays. Non-workdays associations have been adjusted for sitting time on workdays.
Model 2 has additionally been accordingly adjusted for overall stepping time, the workday associations for stepping time on non-workdays and the non-workday associations for stepping time on workdays.
*p≤0.05, **P≤0.01, ***p≤0.001

Supplementary Table 4 Associations between standing time (hours/day) and markers of cardiometabolic health						
	Overall associations		Workday associations		Non-workday associations	
	B (95% CI) Model 1	B (95% CI) Model 2	B (95% CI) Model 1	B (95% CI) Model 2	B (95% CI) Model 1	B (95% CI) Model 2
BMI	-0.178 (-0.765, 0.408)	0.135 (-0.499, 0.769)	0.519 (-0.187, 1.225)	-0.420 (-0.914, 0.073)	0.527 (-0.183, 1.237)	0.527 (-0.183, 1.237)
Waist circumference	-0.958 (-2.477, 0.562)	-0.005 (-1.642, 1.633)	0.786 (-1.044, 2.616)	-0.987 (-2.267, 0.292)	0.849 (-0.989, 2.686)	0.849 (-0.989, 2.686)
Neck circumference	-0.283 (-0.655, 0.089)	-0.197 (-0.602, 0.209)	0.035 (-0.411, 0.482)	-0.242 (-0.555, 0.071)	0.032 (-0.416, 0.481)	0.032 (-0.416, 0.481)
Systolic Blood pressure	-0.342 (-2.144, 1.459)	-0.431 (-2.397, 1.535)	0.425 (-1.766, 2.617)	-0.588 (-2.120, 0.944)	0.312 (-1.885, 2.510)	0.312 (-1.885, 2.510)
Diastolic Blood pressure	-0.168 (-1.431, 1.095)	-0.111 (-1.490, 1.267)	-0.411 (-1.925, 1.103)	0.055 (-1.003, 1.113)	-0.408 (-1.930, 1.115)	-0.408 (-1.930, 1.115)
HbA1c	-0.995 (-1.983, -0.008)	-0.523 (-1.593, 0.546)	-0.678 (-1.828, 0.472)	-0.253 (-1.057, 0.551)	-0.669 (-1.825, 0.487)	-0.669 (-1.825, 0.487)
Triglycerides	-0.120 (-0.250, 0.011)	-0.077 (-0.219, 0.065)	-0.090 (-0.246, 0.066)	-0.026 (-0.135, 0.083)	-0.081 (-0.238, 0.075)	-0.081 (-0.238, 0.075)
LDL	0.049 (-0.051, 0.149)	0.011 (-0.098, 0.119)	0.005 (-0.113, 0.123)	0.003 (-0.080, 0.086)	-0.003 (-0.121, 0.116)	-0.003 (-0.121, 0.116)
HDL	0.050 (0.005, 0.095)	0.026 (-0.022, 0.075)	0.037 (-0.015, 0.089)	0.005 (-0.031, 0.041)	0.036 (-0.017, 0.088)	0.036 (-0.017, 0.088)
Total Cholesterol	0.077 (-0.037, 0.191)	0.029 (-0.095, 0.153)	0.033 (-0.099, 0.165)	0.000 (-0.093, 0.092)	0.027 (-0.105, 0.160)	0.027 (-0.105, 0.160)

Data have been presented with the unstandardised Beta coefficient (B) and the Confidence Intervall (CI). Coefficients represent the SD difference in the outcome per SD unit difference in the exposure.
Model 1 has been adjusted for **age**, marital status, ethnicity, education, smoking status, total years working at the company, total years working as a HGV driver, working hours per week, cardiometabolic and other medication and appropriate waking wear time. Workday associations have been adjusted for standing time on non-workdays. Non-workdays associations have been adjusted for standing time on workdays.
Model 2 has additionally been accordingly adjusted for overall stepping time, the workday associations for stepping time on non-workdays and the non-workday associations for stepping time on workdays.
*p≤0.05, **P≤0.01, ***p≤0.001

Supplementary Table 5 Associations between MVPA (hours/day) and markers of cardiometabolic health						
	Overall associations		Workday associations		Non-workday associations	
	B (95% CI) Model 1	B (95% CI) Model 2	B (95% CI) Model 1	B (95% CI) Model 2	B (95% CI) Model 1	B (95% CI) Model 2
BMI	0.340 (-1.951, 2.631)	-0.900 (-3.378, 1.577)	-1.722 (-4.994, 1.546)	-1.887 (-5.202, 1.428)	-0.729 (-2.022, 0.564)	-0.637 (-1.931, 0.657)
Waist circumference	0.753 (-5.192, 6.699)	-3.307 (-9.701, 3.086)	-3.649 (-12.076, 4.829)	-3.676 (-12.247, 4.895)	-2.358 (-5.701, 0.984)	-2.108 (-5.453, 1.236)
Neck circumference	0.690 (-0.765, 2.146)	0.204 (-1.379, 1.788)	-1.718 (-3.780, 0.344)	-1.784 (-3.874, 0.307)	-0.206 (-1.024, 0.611)	-0.197 (-1.019, 0.625)
Systolic Blood pressure	6.435 (-0.562, 13.433)	6.665 (-0.976, 14.306)	-5.073 (-15.201, 5.055)	-5.716 (-15.976, 4.544)	1.657 (-2.348, 5.662)	1.483 (-2.537, 5.504)
Diastolic Blood pressure	4.845 (-0.056, 9.746)	4.634 (-0.718, 9.985)	-0.379 (-7.388, 6.630)	-0.389 (-7.498, 6.719)	-0.257 (-3.028, 2.515)	-0.227 (-3.014, 2.560)
HbA1c	-1.304 (-5.179, 2.572)	-3.702 (-7.882, 0.477)	-3.129 (-8.454, 2.195)	-3.171 (-8.571, 2.229)	-0.820 (-2.926, 1.286)	-0.730 (-2.844, 1.385)
Triglycerides	0.246 (-0.266, 0.757)	0.018 (-0.537, 0.573)	-0.158 (-0.881, 0.566)	-0.086 (-0.818, 0.646)	-0.140 (-0.425, 0.146)	-0.124 (-0.410, 0.162)
LDL	0.430* (0.041, 0.819)	0.611** (0.189, 1.033)	0.596* (0.055, 1.137)	0.563* (0.015, 1.111)	0.042 (-0.172, 0.257)	0.047 (-0.168, 0.263)
HDL	-0.102 (-0.277, 0.074)	0.015 (-0.174, 0.204)	-0.007 (-0.249, 0.235)	-0.015 (-0.260, 0.230)	0.048 (-0.048, 0.143)	0.037 (-0.058, 0.132)
Total Cholesterol	0.417 (-0.027, 0.861)	0.650** (0.170, 1.130)	0.589 (-0.018, 1.196)	0.558 (-0.057, 1.173)	0.012 (-0.228, 0.252)	0.011 (-0.230, 0.253)

Data have been presented with the unstandardised Beta coefficient (B) and the Confidence Intervall (CI). Coefficients represent the SD difference in the outcome per SD unit difference in the exposure.
Model 1 has been adjusted for age, marital status, ethnicity, education, smoking status, total years working at the company, total years working as a HGV driver, working hours per week, cardiometabolic and other medication and appropriate waking wear time. Workday associations have been adjusted for MVPA on non-workdays. Non-workdays associations have been adjusted for MVPA on workdays.
Model 2 has additionally been accordingly adjusted for LPA, the workday associations for LPA on non-workdays and the non-workday associations for LPA on workdays.
*$p \leq 0.05$, **$P \leq 0.01$, ***$p \leq 0.001$

Supplementary Table 6 Associations between steps (bouts per 1500) and markers of cardiometabolic health						
	Overall associations		Workday associations		Non-workday associations	
	B (95% CI) Model 1	B (95% CI) Model 2	B (95% CI) Model 1	B (95% CI) Model 2	B (95% CI) Model 1	B (95% CI) Model 2
BMI	-0.285* (-0.539, -0.032)	-0.271 (-0.621, 0.078)	-0.283 (-0.576, 0.009)	-0.269 (-0.564, 0.025)	0.039 (-0.170, 0.248)	0.037 (-0.172, 0.246)
Waist circumference	-0.990**(-1.643, -0.337)	-0.845 (-1.746, 0.056)	-0.609 (-1.367, 0.149)	-0.593 (-1.356, 0.170)	-0.044 (-0.584, 0.497)	-0.049 (-0.591, 0.492)
Neck circumference	-0.137 (-0.299, 0.024)	-0.067 (-0.289, 0.156)	-0.086 (-0.272, 0.099)	-0.076 (-0.262, 0.111)	0.001 (-0.131, 0.134)	0.000 (-0.133, 0.133)
Systolic Blood pressure	-0.075 (-0.858, 0.708)	-0.018 (-1.099, 1.063)	0.002 (-0.910, 0.907)	0.013 (-0.902, 0.929)	0.288 (-0.360, 0.936)	0.291 (-0.359, 0.940)
Diastolic Blood pressure	-0.124 (-0.673, 0.425)	-0.118 (-0.875, 0.639)	-0.120 (-0.749, 0.508)	-0.131 (-0.764, 0.501)	0.033 (-0.415, 0.481)	0.038 (-0.411, 0.487)
HbA1c	-0.609** (-1.035, -0.182)	-0.377 (-0.965, 0.210)	-0.298 (-0.775, 0.179)	-0.273 (-0.753, 0.207)	-0.073 (-0.414, 0.268)	-0.065 (-0.405, 0.275)
Triglycerides	-0.064* (-0.120, -0.007)	-0.035 (-0.113, 0.043)	-0.035 (-0.099, 0.030)	-0.030 (-0.095, 0.035)	-0.025 (-0.071, 0.021)	-0.024 (-0.070, 0.022)
LDL	0.043 (0.000, 0.086)	0.035 (-0.025, 0.095)	0.005 (-0.043, 0.054)	0.006 (-0.043, 0.055)	0.025 (-0.010, 0.060)	0.025 (-0.010, 0.059)
HDL	0.026** (0.007, 0.046)	0.011 (-0.016, 0.038)	0.020 (-0.001, 0.042)	0.020 (-0.002, 0.041)	-0.001(-0.016, 0.014)	-0.001 (-0.017, 0.014)
Total Cholesterol	0.048 (-0.001, 0.098)	0.025 (-0.043, 0.093)	0.013 (-0.041, 0.068)	0.014 (-0.041, 0.069)	0.015 (-0.024, 0.054)	0.015 (-0.024, 0.054)

Data have been presented with the unstandardised Beta coefficient (B) and the Confidence Intervall (CI). Coefficients represent the SD difference in the outcome per SD unit difference in the exposure.
Model 1 has been adjusted for age, marital status, ethnicity, education, smoking status, total years working at the company, total years working as a HGV driver, working hours per week, cardiometabolic and other medication and appropriate waking wear time. Workday associations have been adjusted for total steps on non-workdays. Non-workdays associations have been adjusted for total steps on workdays.
Model 2 has additionally been accordingly adjusted for overall sitting time, the workday associations for sitting time on non-workdays and the non-workday associations for sitting time on workdays.
*p≤0.05, **P≤0.01, ***p≤0.001