

Table S1. Arterial stiffness (cfPWV in m/s) mean differences at follow-up and 95% confidence intervals according to work-related psychosocial factors (job strain and effort-reward imbalance) at baseline (1999-2001) stratified by age and Gaziano's predicted cardiovascular risk at the time of exposure

	Age, years		Gaziano's predicted cardiovascular risk	
	<55	≥55	Weak	Moderate or high
Missing/observations read	162/1523	27/112	110/1383	28/201
Job strain				
Low strain	Ref.	Ref.	Ref.	Ref.
Passive	-0.06 (-0.29;+0.17)	+0.25 (-0.74;+1.23)	-0.10 (-0.33;+0.13)	+0.30 (-0.34;+0.94)
Active	-0.07 (-0.31;+0.17)	+0.26 (-0.68;+1.21)	-0.08 (-0.33;+0.17)	+0.16 (-0.40;+0.72)
High job strain	-0.11 (-0.35;+0.14)	+0.55 (-1.23;+2.34)	-0.13 (-0.37;+0.11)	+0.24 (-0.55;+1.03)
Missing/observations read	162/1523	27/112	110/1383	28/201
ERI (2 categories)				
No	Ref.	Ref.	Ref.	Ref.
Yes	+0.06 (-0.13;+0.25)	+0.52 (-0.67;+1.71)	+0.08 (-0.11;+0.28)	-0.20 (-0.77;+0.37)
ERI as a continuous variable	+0.04 (-0.46;+0.54)	-0.32 (-3.25;+2.62)	+0.04 (-0.53;+0.60)	-0.21 (-1.54;+1.12)

Models are adjusted for gender and covariates at baseline (age, education, income, marital status, children, systolic blood pressure (mmHg), diastolic blood pressure (mmHg), diabetes, hypercholesterolemia, BMI, waist circumference (cm), alcohol abuse, daily smoking, physical activity, familial history of cardiovascular disease, psychological distress, hours worked per week for the organization, hours worked per week for another organization, ERI (when studying the effect of job strain) or job strain (when studying the effect of ERI)).

Models are restricted to people with no personal history of cardiovascular disease at baseline.

ERI: effort-reward imbalance

cfPWV: carotid-femoral pulse wave velocity

Baseline: 1999-2001; follow-up: 2015-2018

Table S2a. Arterial stiffness (cfPWV in m/s) mean differences at follow-up and 95% confidence intervals according to work-related psychosocial factors (job strain and effort-reward imbalance) at baseline stratified by employment status at the time of arterial stiffness measurement (fully adjusted model*)

	Employees	Non-employees
Missing/observations read	49/492	139/1137
Job strain		
Low strain	Ref	Ref
Passive	-0.04 (-0.24;+0.16)	-0.05 (-0.28;+0.19)
Active	-0.18 (-0.52;+0.16)	+0.04 (-0.29;+0.36)
High job strain	+0.00 (-0.33;+0.34)	-0.14 (-0.41;+0.13)
Missing/observations read	49/492	139/1137
Effort-reward imbalance (2 categories)		
No	Ref	Ref
Yes	+0.13 (-0.12;+0.37)	+0.05 (-0.23;+0.34)
Effort-reward imbalance as a continuous variable	+0.43 (-0.33;+1.18)	-0.04 (-0.70;+0.61)

*The model is adjusted for covariates at baseline (age, education, income, marital status, having at least on child, systolic blood pressure, diastolic blood pressure, diabetes, hypercholesterolemia, body mass index, waist circumference, alcohol abuse, daily smoking, physical activity, familial history of CVD, psychological distress, hours worked per week for the organization, hours worked per week for another organization, effort-reward imbalance (when studying the effect of job strain) or job strain (when studying the effect of effort-reward imbalance).) and for gender. People with personal history of cardiovascular events at baseline are not included.

The category of people with imprecise employment status was excluded from stratification given a low size.

Baseline: 1999-2001; follow-up: 2015-2018

Table S2b. Arterial stiffness (m/s) mean differences at follow-up and 95% confidence intervals according to work-related psychosocial factors (job strain and effort-reward imbalance) at baseline in participants with the status of retired in follow-up according to the duration of the retirement (fully adjusted model*)

	The duration of the retirement	
	≤ 2 years	> 2 years
Missing/observations read	34/293	90/778
Job strain		
Low strain	Ref.	Ref.
Passive	+0.07 (-0.34;+0.49)	-0.10 (-0.40;+0.19)
Active	-0.14 (-0.54;+0.27)	-0.04 (-0.36;+0.29)
High job strain	-0.24 (-0.69;+0.22)	-0.20 (-0.58;+0.19)
Missing/observations read	34/293	90/778
Effort-reward imbalance (2 categories)		
No	Ref	Ref
Yes	+0.03 (-0.30;+0.35)	+0.20 (-0.14;+0.55)
Effort-reward imbalance as a continuous variable	-0.26 (-0.91;+0.38)	+0.29 (-0.61 ;+1.19)

The model is adjusted for covariates at baseline (age, education, income, marital status, having at least on child, systolic blood pressure, diastolic blood pressure, diabetes, hypercholesterolemia, body mass index, waist circumference, alcohol abuse, daily smoking, physical activity, familial history of CVD, psychological distress, hours worked per week for the organization, hours worked per week for another organization, effort-reward imbalance (when studying the effect of job strain) or job strain (when studying the effect of effort-reward imbalance)) and for gender. People with personal history of cardiovascular events at baseline are not included.

Baseline: 1999-2001; follow-up: 2015-2018

Table S3. Arterial stiffness (m/s) mean differences at follow-up and 95% confidence intervals according to work-related psychosocial factors (job strain and effort-reward imbalance) at baseline with and without participants with personal history of cardiovascular events* at baseline (fully adjusted models)

Exposure	With individuals with personal history of CVD at baseline (Model A)	Without individuals with personal history of CVD at baseline (Model B)
Job strain in men		
Low strain	Ref.	Ref.
Passive	+0.21 (-0.10;+0.51)	+0.19 (-0.13;+0.51)
Active	-0.11 (-0.45;+0.24)	-0.05 (-0.42;+0.31)
High job strain	-0.02 -0.57;+0.52)	-0.02 (-0.55;+0.50)
Job strain in women		
Low strain	Ref.	Ref.
Passive	-0.18 (-0.40;+0.05)	-0.23 (-0.47;+0.00)
Active	-0.03 (-0.34;+0.28)	-0.11 (-0.39;+0.16)
High job strain	-0.30 (-0.57;-0.02)	-0.27 (-0.59;+0.06)
Effort-reward imbalance in men		
No	Ref.	Ref.
Yes	-0.09 (-0.43;+ 0.26)	-0.04 (-0.35;+ 0.28)
Effort-reward imbalance in women		
No	Ref.	Ref.
Yes	+0.22 (-0.10;+ 0.53)	+0.18 (-0.08;+ 0.43)

* Cardiovascular events: angina pectoris, acute myocardial infarction, coronary bypass surgery, dilation

Model A includes covariates at baseline (age, education, income, marital status, having at least on child, systolic blood pressure, diastolic blood pressure, diabetes, hypercholesterolemia, body mass index, waist circumference, alcohol abuse, daily smoking, physical activity, familial history of CVD, personal history of CVD, psychological distress, hours worked per week for the organization, hours worked per week for another organization, effort-reward imbalance (when studying the effect of job strain) or job strain (when studying the effect of effort-reward imbalance)).

Model B= Model A without participants with personal history of cardiovascular events at baseline (n=101)

Baseline: 1999-2001; follow-up: 2015-2018

Table S4. Arterial stiffness (m/s) mean differences at follow-up and 95% confidence intervals according to work-related psychosocial factors (job strain and effort-reward imbalance) at baseline before and after correction for selection bias (fully adjusted models*)

	Men			Women		
	No imputation	42 imputations	IPW	No imputations	42 imputations	IPW
Job strain						
Low strain	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Passive	+0.19 (-0.13;+0.51)	+0.10 (-0.19;+0.39)	+0.10 (-0.27;+0.47)	-0.23 (-0.47;+0.00)	-0.19 (-0.44;+0.06)	-0.12 (-0.49;+0.24)
Active	-0.05 (-0.42;+0.31)	-0.06 (-0.39;+0.28)	+0.01 (-0.43;+0.44)	-0.11 (-0.39;+0.16)	-0.10 (-0.37;+0.16)	-0.08 (-0.49;+0.33)
High job strain	-0.02 (-0.55;+0.50)	-0.07 (-0.50;+0.36)	-0.05 (-0.59;+0.48)	-0.27 (-0.59;+0.06)	-0.25 (-0.59;+0.09)	-0.23 (-0.60;+0.14)
ERI						
No	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Yes	-0.04 (-0.35;+ 0.28)	+0.07 (-0.18;+0.32)	+0.21 (-0.11;+0.55)	+0.18 (-0.08;+ 0.43)	+0.09 (-0.13;+0.31)	+0.07 (-0.22;+0.36)
ERI as a continuous variable	-0.16 (-1.20;+0.89)	+0.25 (-0.64;+1.14)	+0.29 (-0.72;+1.30)	+0.18 (-0.28;+0.64)	+0.13 (-0.43;+0.69)	+0.09 (-0.62;+0.80)

*Models are adjusted for covariates at baseline (age, education, income, marital status, having at least on child, systolic blood pressure, diastolic blood pressure, diabetes, hypercholesterolemia, body mass index, waist circumference, alcohol abuse, daily smoking, physical activity, familial history of CVD, psychological distress, hours worked per week for the organization, hours worked per week for another organization, effort-reward imbalance (when studying the effect of job strain) or job strain (when studying the effect of effort-reward imbalance)).

Models are restricted to people with no personal history of cardiovascular events at baseline.

ERI: effort-reward imbalance

IPW: inverse probability weighting

Baseline: 1999-2001; follow-up: 2015-2018

References

1. Gaziano TA, Young CR, Fitzmaurice G, Atwood S, Gaziano JM. Laboratory-based versus non-laboratory-based method for assessment of cardiovascular disease risk: the NHANES I Follow-up Study cohort. *Lancet (London, England)*. 2008;371(9616):923-31.
2. Pandya A, Weinstein MC, Gaziano TA. A comparative assessment of non-laboratory-based versus commonly used laboratory-based cardiovascular disease risk scores in the NHANES III population. *PloS one*. 2011;6(5):e20416-e.