

La sédentarité au travail : un risque professionnel à part entière

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Yolande Esquirol, Jean Ferrières
 CHU Toulouse, UMR Inserm 1027

Key points

- Sedentary behavior kills
- We have sedentary behavior at work

Sedentary behavior is an occupational risk

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- We have sedentary behavior at work

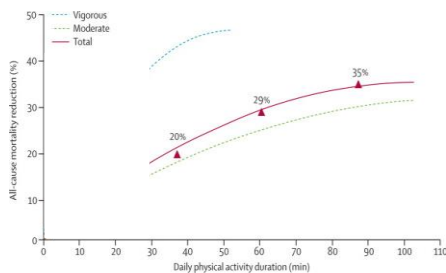
Sedentary behavior is an occupational risk

Background

- Physical activity
- Sedentary behavior

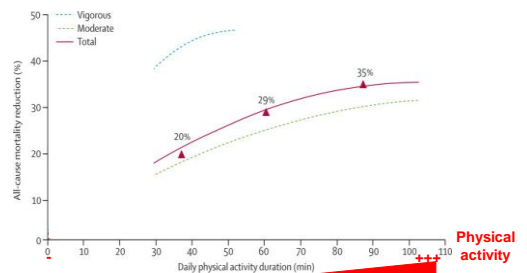
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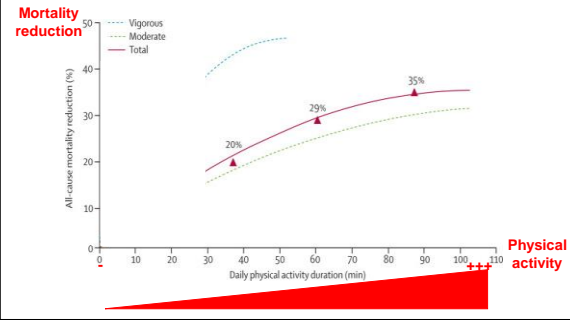
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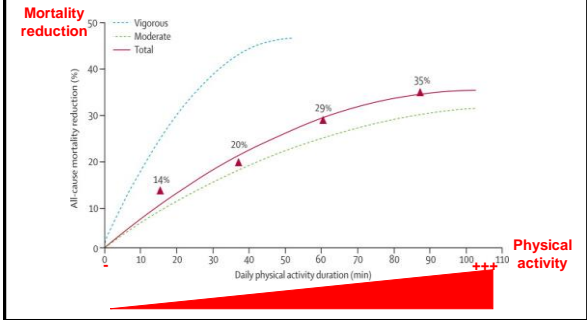
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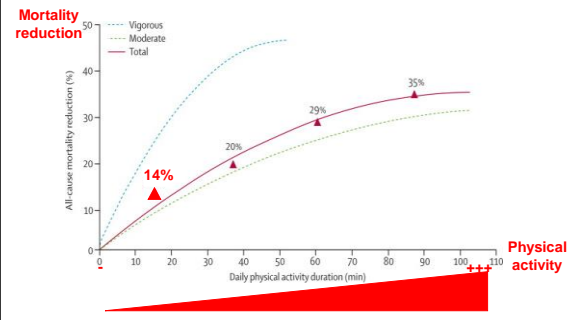
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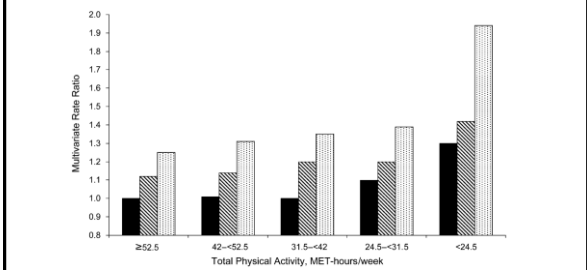
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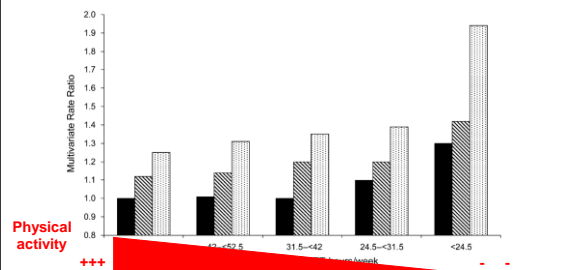
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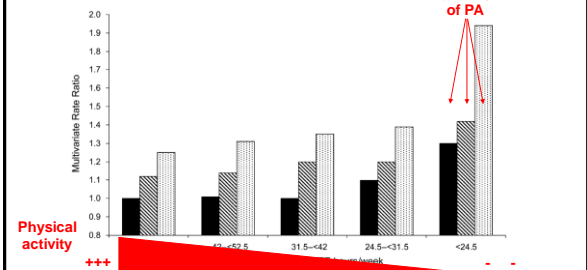
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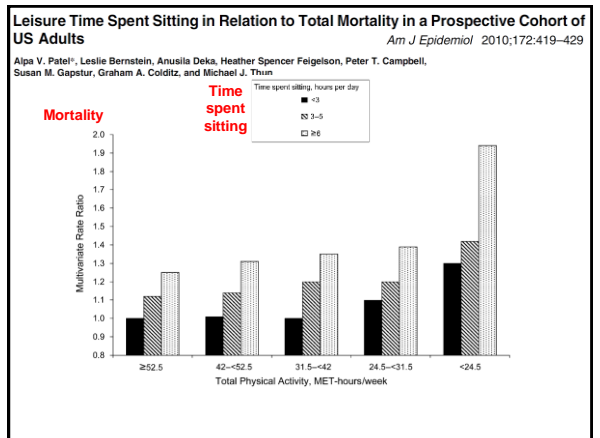
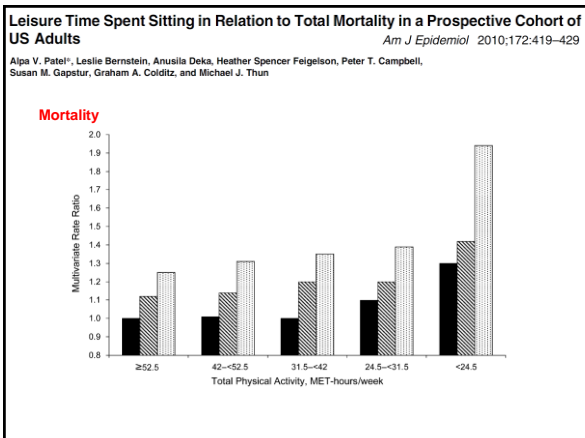
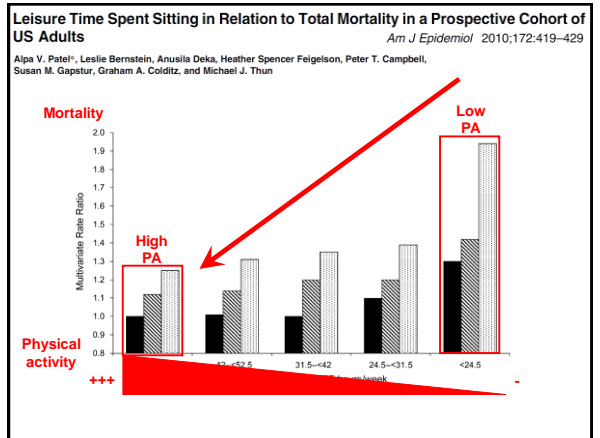
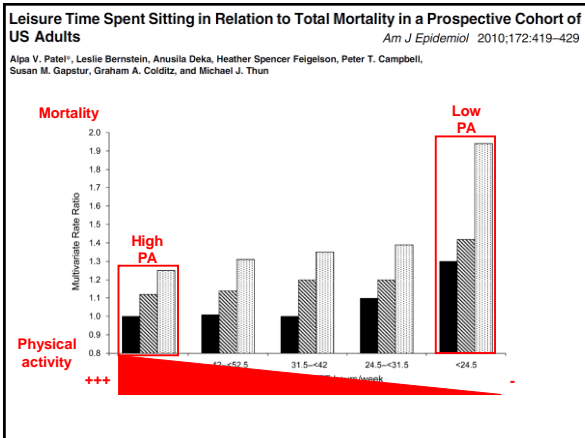
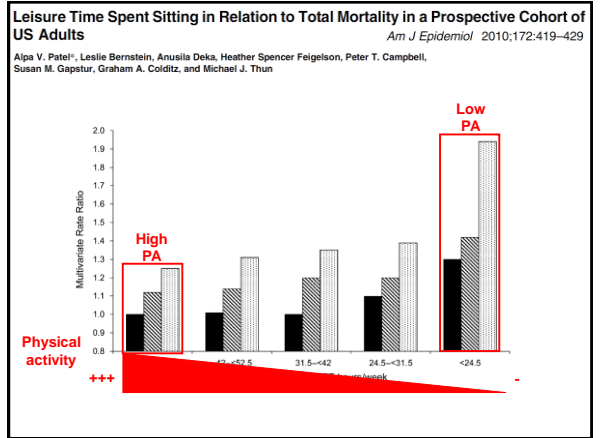
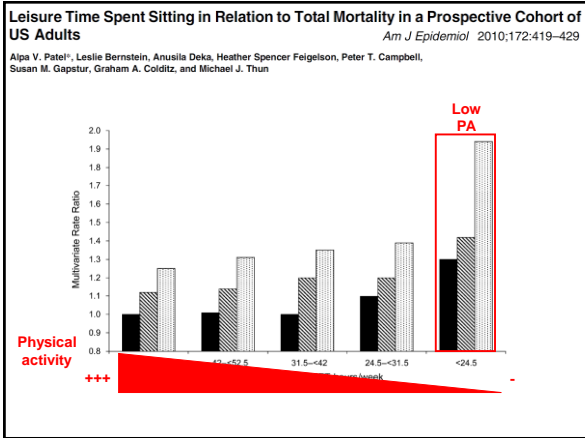
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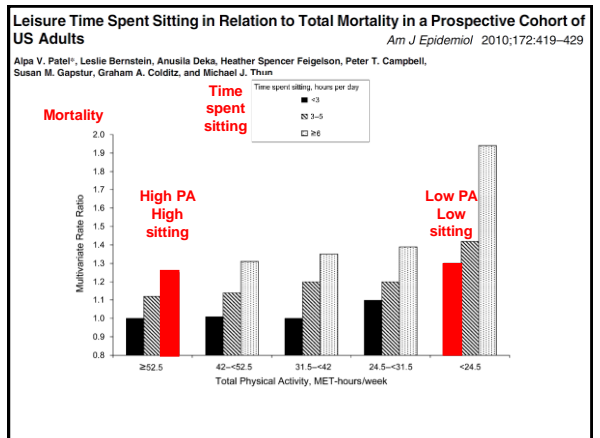
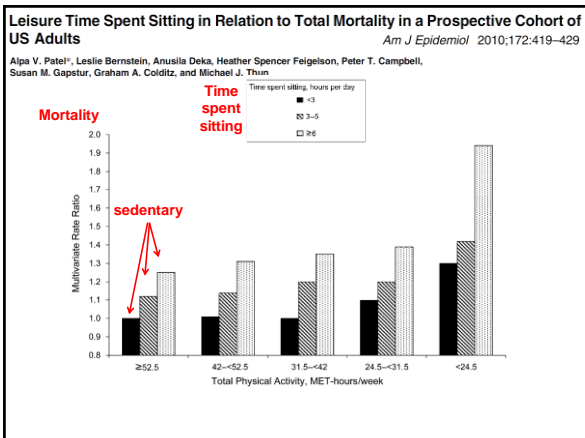
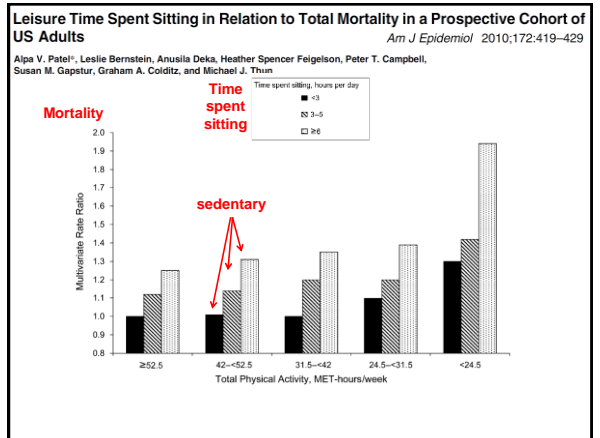
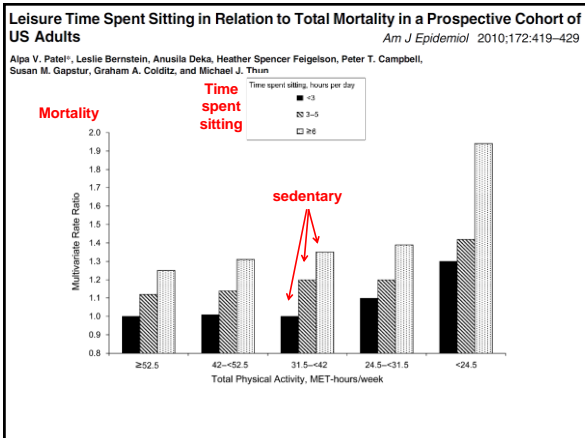
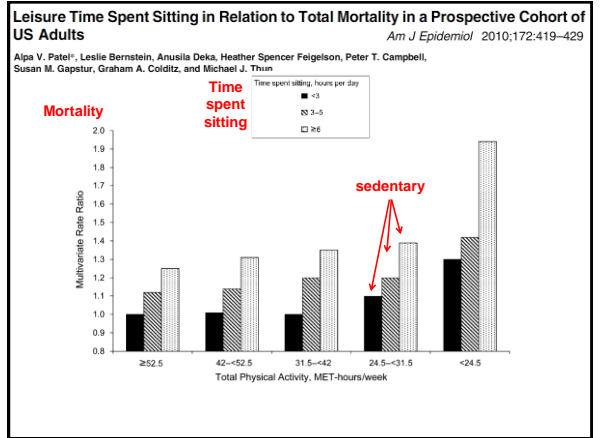
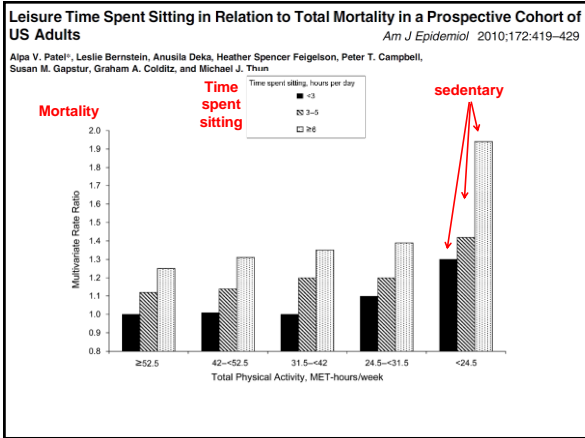


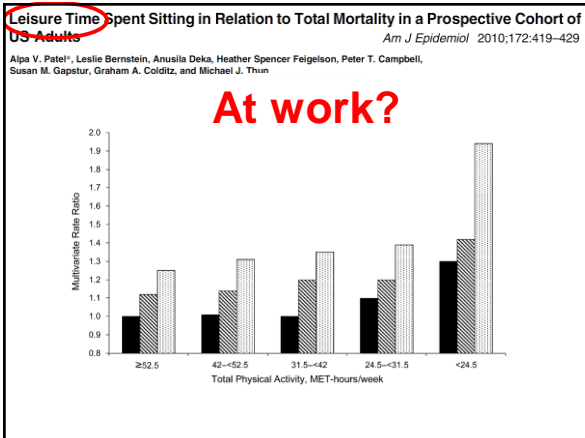
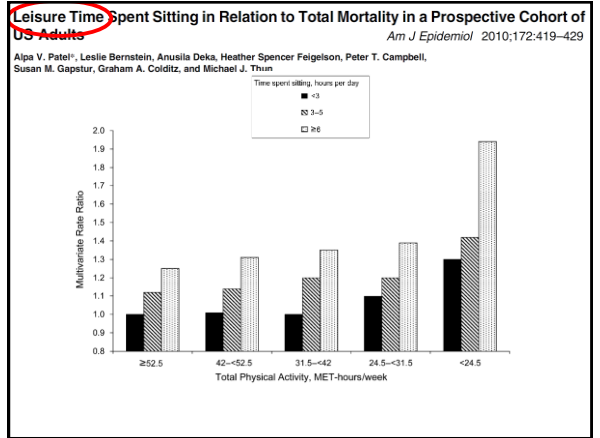
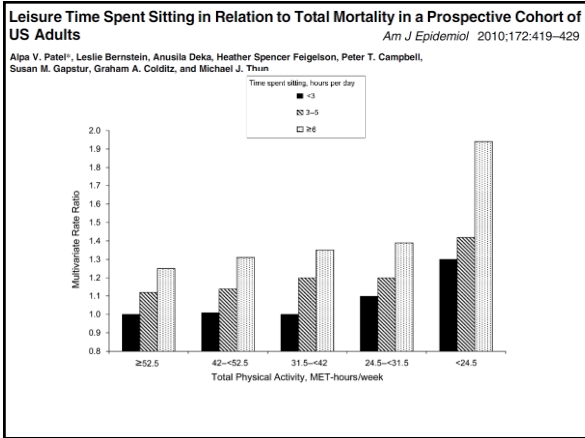
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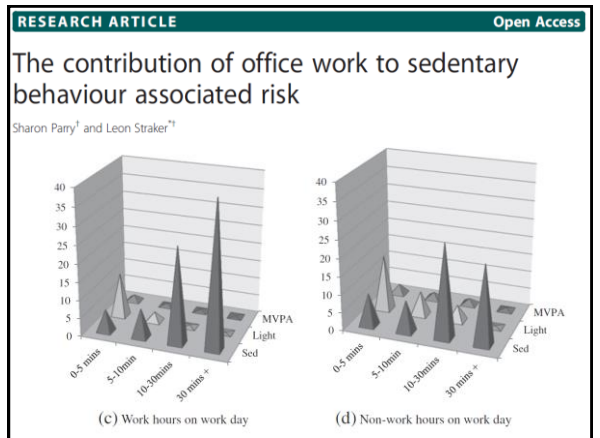
Observational studies
At work?

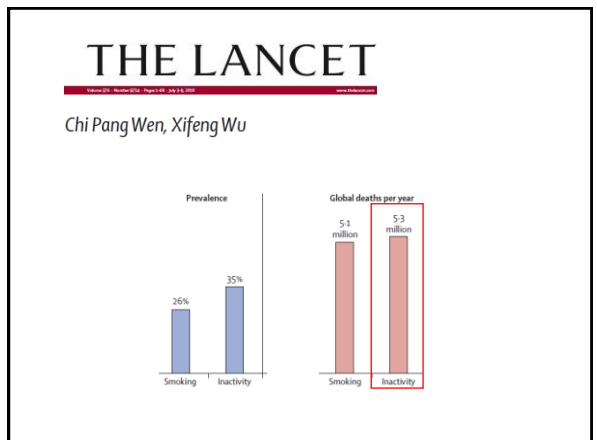
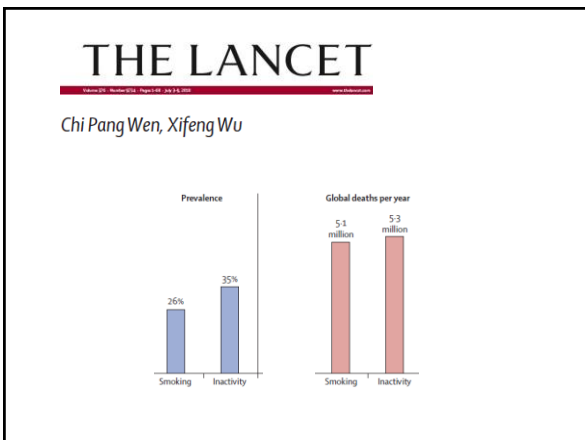
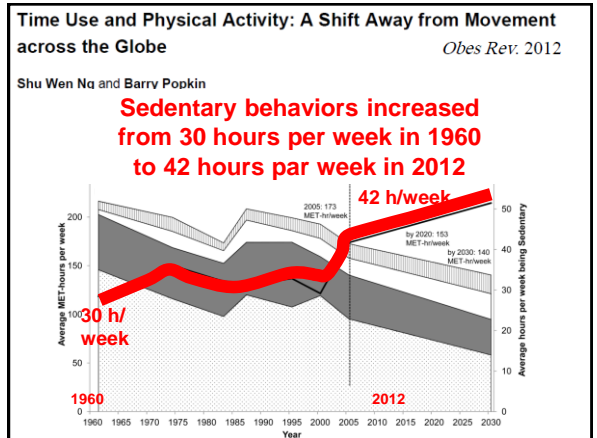
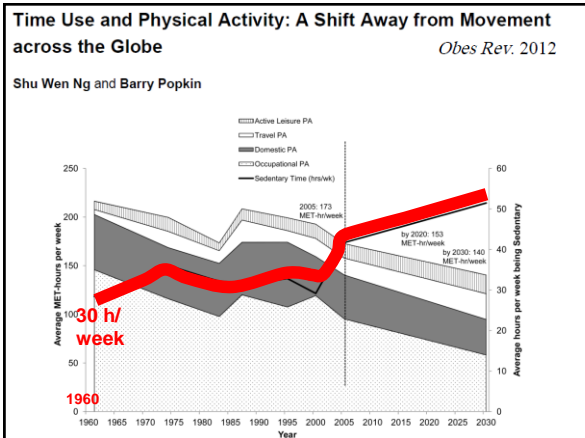
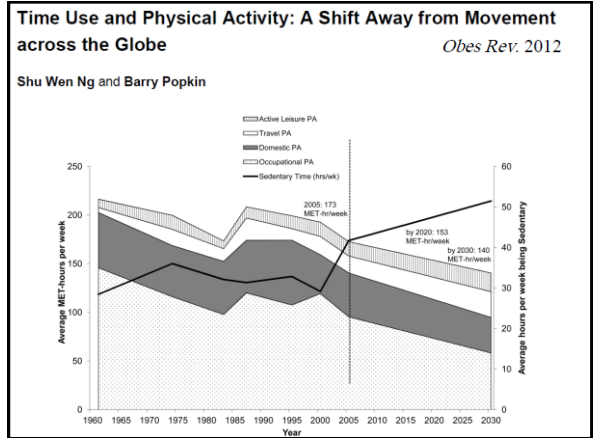
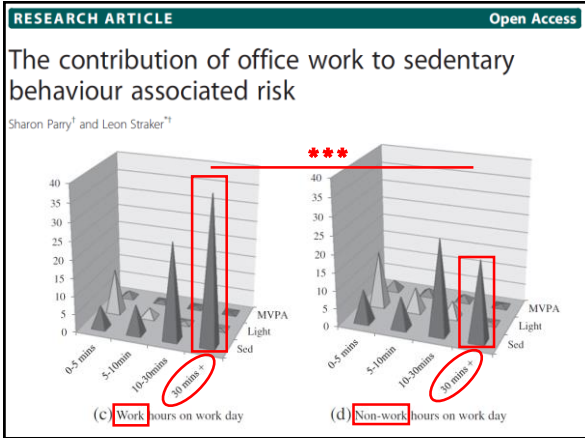
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- Sedentary behavior

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Epidemiology





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Are **Sitting Occupations** Associated with Increased All-Cause, Cancer, and Cardiovascular Disease Mortality Risk? A Pooled Analysis of Seven British Population Cohorts

September 2013 | Volume 8 | Issue 9 | e73753

Results: In total there were 754 all-cause deaths. In women, a standing/walking occupation was associated with lower risk of all-cause (fully adjusted hazard ratio [HR]=0.68, 95% CI 0.52–0.89) and cancer (HR=0.60, 95% CI 0.43–0.85) mortality, compared to sitting occupations. There were no associations in men.

WOMEN			
All-cause Mortality			
Predominant activity at work	Cases/total n	Model 3 [†] HR (95% CI)	
Sitting	116/2090	1	
Standing/walking about	149/3124	0.68 (0.52–0.89)	
Trend p [‡]		0.005 (0.017) [‡]	
Cancer mortality			
Sitting	77/2090		
Standing/walking about	83/3124	0.60 (0.43–0.85)	
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At work?

- Physical activity
- Sedentary behavior

Health
outcomes

~~Observational studies~~
At work?

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Health
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Interventional studies
At work?

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Health
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Interventional studies
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Health
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Health
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Interventional studies

Only on sedentary behaviors ?

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Health
outcomes

Interventional studies

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Health outcomes


Diabetes Care.
 2016

Paddy C. Dempsey,^{1,2} Robyn N. Larsen,¹ Parneet Sethi,¹ Julian W. Sacre,¹ Nora E. Straznicki,¹ Neale D. Cohen,¹ Ester Cerin,^{1,3,4} Gavin W. Lambert,^{1,2} Neville Owen,¹ Bronwyn A. Kingwell,¹ and David W. Dunstan^{1,3,5}


Randomization

Intervention

Sitting 8 hours

control

Sitting 8 hours


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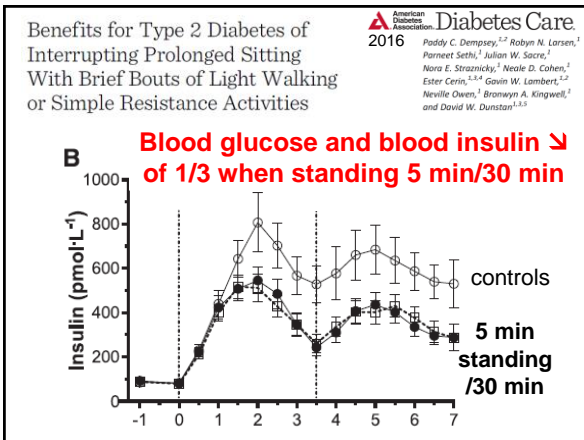
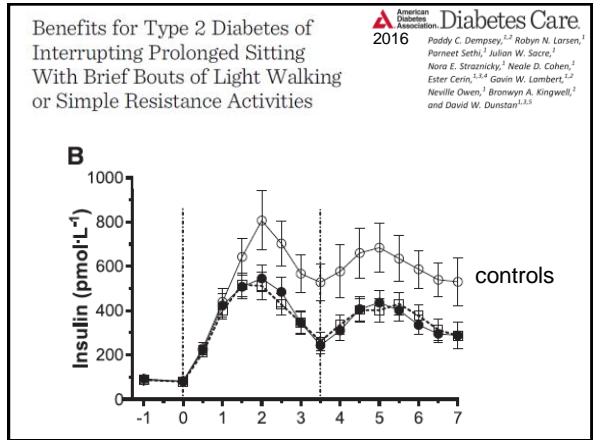
Intervention

Sitting 8 hours

+ 5 min standing /30 min

control

Sitting 8 hours



Interventional studies

- Physical activity
- Sedentary behavior

Health outcomes

Interventional studies **At work?**

- Physical activity
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Health outcomes

Interventional studies **At work?**

Only on sedentary behaviors ?

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Health outcomes

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Health outcomes

The American Journal of Cardiology 2009

Impact of Worksite Wellness Intervention on Cardiac Risk Factors and One-Year Health Care Costs

Richard V. Milani, MD*, and Carl J. Lavie, MD

Randomization

Intervention

6 months at work:

- Counseling**
- Nutrition**
- Physical activity**
- Stop smoking**
- Health education**

control

The American Journal of Cardiology 2009

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control

The American Journal of Cardiology 2009

Impact of **Worksite Wellness Intervention** on Cardiac Risk Factors and One-Year Health Care Costs

Change in health parameters in active participants after worksite health intervention (n = 185)

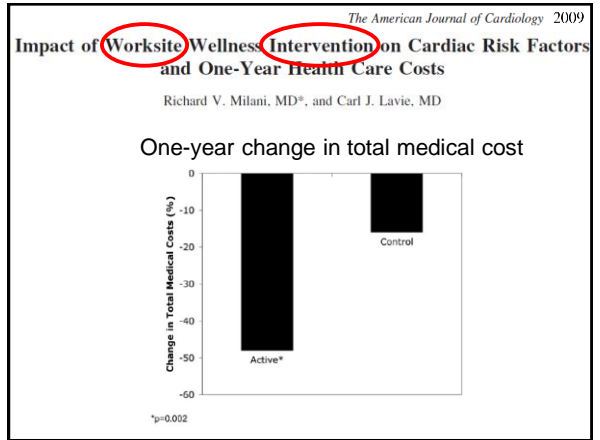
Variable	Baseline	After Intervention	Change	p Value
Anxiety (U)	3.7 ± 4.2	2.5 ± 3.6	-32%	0.0001
Depression (U)	2.4 ± 3.7	1.6 ± 3.1	-33%	0.0002
Somatization (U)	5.2 ± 4.1	3.5 ± 3.3	-33%	0.0001
Hostility (U)	3.6 ± 4.0	1.9 ± 2.8	-47%	0.0001
Quality of life (U)	117 ± 12	128 ± 14	10%	0.001
CAGE (U)	0.17 ± 1.1	0.09 ± 0.08	-47%	NS
Body mass index (kg/m ³)	28.5 ± 5.7	28.3	-1%	0.08
Fat (%)	26.7	24.4	-9%	0.001
Smoker (%)	17%	15%	-12%	NS
Sedentary (%)	79%	72%	-9%	0.14
Total cholesterol (mg/dl)	190	184	-3%	NS
HDL cholesterol (mg/dl)	47	53	13%	0.0001
TC/HDL (U)	4.2	3.6	-14%	0.0001
Systolic blood pressure (mm Hg)	124	122	-2%	0.08
Diastolic blood pressure (mm Hg)	81	79	-2%	0.01
Health habits (U)	2.0	0.8	-60%	0.0001
Total health risk score (U)	7.2 ± 5.1	5.4 ± 4.0	-25%	0.0001

The American Journal of Cardiology 2009

Impact of **Worksite Wellness Intervention** on Cardiac Risk Factors and One-Year Health Care Costs

Change in health parameters in active participants after worksite health intervention (n = 185)

Variable	Baseline	After Intervention	Change	p Value
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CV Risk:				
Health habits (U)	2.0	0.8	-60%	0.0001
Total health risk score (U)	7.2 ± 5.1	5.4 ± 4.0	-25%	0.0001



Salud Pública Mex 2012, 54:20-27

A workplace physical activity program at a public university in Mexico can reduce medical costs associated with type 2 diabetes and hypertension

Pablo Méndez-Hernández, D Sc.^(1,2,3) Darina Dosamantes-Carrasco, MSc.^(1,4) Carole Siani, D Sc.⁽¹⁾ Yvonne N Flores, D Sc.^(4,5) Armando Arredondo, D Sc.⁽⁶⁾ Irma Lumbrales-Delgado, MSc.⁽²⁾ Victor M Granados-García, MSc.⁽⁷⁾ Edgar Denova-Gutiérrez, MSc.^(4,8) Katia Gallegos-Carrillo, MSc.⁽⁹⁾ Jorge Salmerón, D Sc.^(4,9)

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each dollar invested in a recreational PA program might translate into a healthcare cost reduction of 2.2 USD for type 2 diabetes, 2.1 USD for HBP and 5.3 USD for both.

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Interventional studies **At work?**

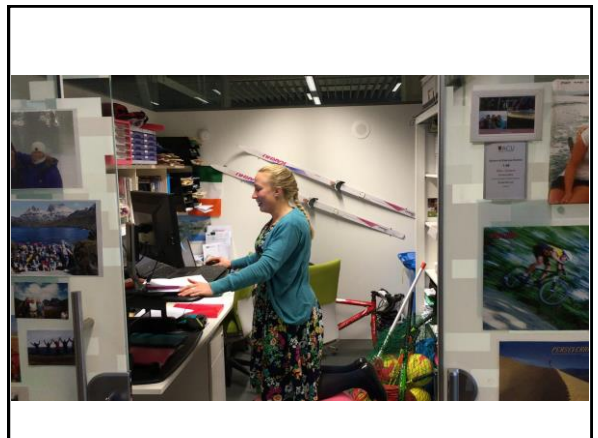
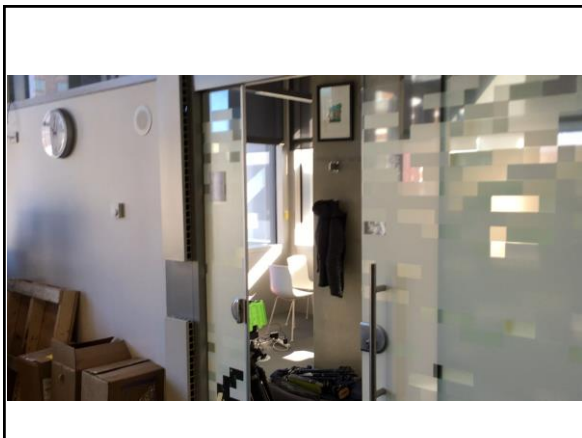
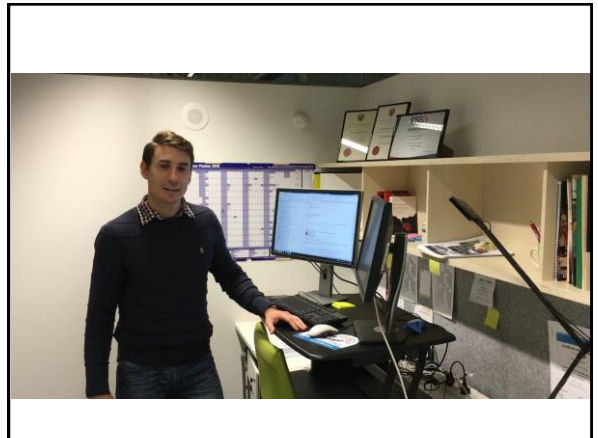
- Physical activity
- Sedentary behavior

Health
outcomes

Interventional studies **At work?**

- Physical activity
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Key points

- Sedentary behavior kills
- We have sedentary behavior at work

Sedentary behavior is an occupational risk

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A massive area for future research

