

# Move More

Treadmill Desks as a successful intervention to reduce sedentary time and increase physical activity



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*Walking is a man's  
best medicine*

Hippocrates

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# What is the current state of NCDs?

For the first time in human history, non-communicable diseases (NCDs) are killing more people than infectious diseases. Every year, about 38 million people die from a NCD—more than two-thirds of the world's annual deaths.



# How are healthcare insurance companies trying to alter the risks?

## Promoting Physical Health & Fitness

### Assessing current health



- ✓ Online questionnaires about health and wellness:
  - Family medical history
  - Healthy activity
  - Healthy nutrition
  - Healthy mind and body
  - Healthy habits
  - Workplace wellness
- ✓ Comprehensive annual Health Assessment:
  - Weight
  - Waist circumference
  - Body Mass Index
  - Blood pressure
  - Glucose levels
  - Cholesterol levels
- ✓ Fitness assessment



### Encouraging active lifestyle

- ✓ Gym membership
- ✓ Daily step counting
- ✓ Training programmes
- ✓ Fitness events
- ✓ Outdoor exercise programmes
- ✓ Online lifestyle improvement courses
- ✓ Exercise tracking



### Recognising achievements

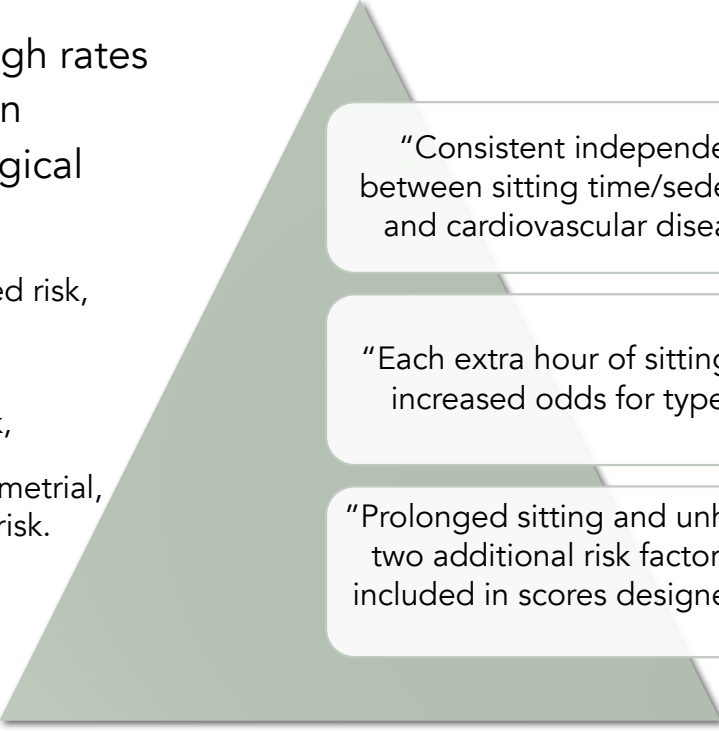
- ✓ Gym visits,
- ✓ Event participation,
- ✓ Calories (>300 in 1 session), and
- ✓ Steps (>10,000 per day)

# What do we know about sitting?

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Regardless of regular exercise, high rates of sedentary behaviour have been associated with adverse physiological outcomes, such as:

- cardiovascular disease - 147% increased risk,
- type 2 diabetes (112% increased risk),
- all-cause mortality - 50% increased risk,
- cancer (breast, colon, colorectal, endometrial, epithelial ovarian) - 30-66% increased risk.



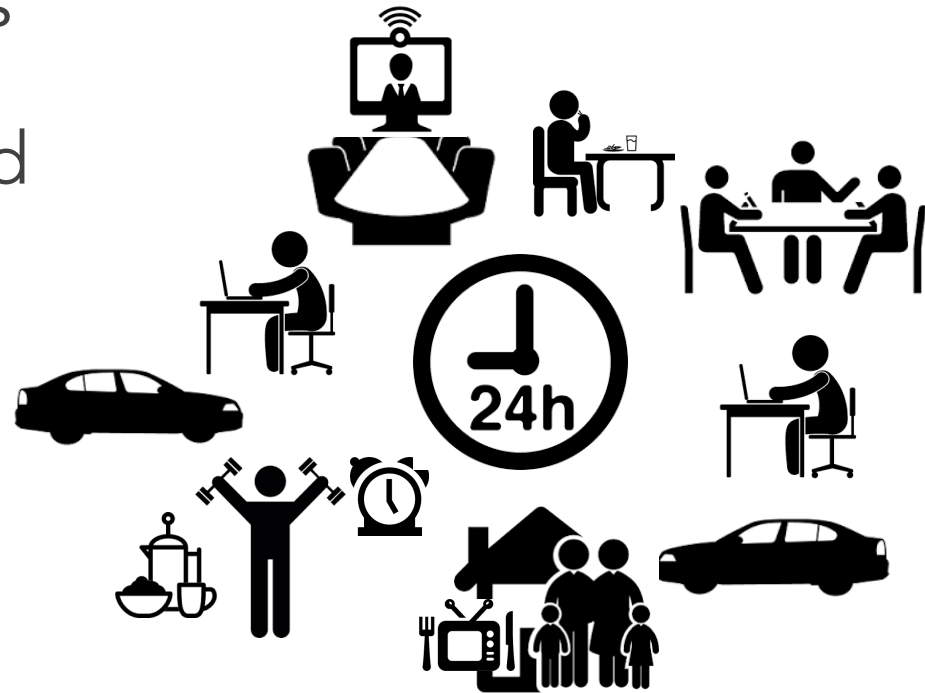
"Consistent independent associations have been observed between sitting time/sedentary behaviors and elevated all-cause and cardiovascular disease mortality risk" 2011; Dunstan, DW et al

"Each extra hour of sitting time per day is associated with a 22% increased odds for type 2 diabetes" 2015; Van Der Berg, J.D, et al

"Prolonged sitting and unhealthy sleep duration are established as two additional risk factors for all-cause mortality that should be included in scores designed to quantify health risk." 2015; Ding Ding et al

# What is the reality?

80% of our waking day is spent sitting, while commuting, working, and spending leisure time.



# What about the workplace?

Workplaces have a significant role to play to reduce sedentary time.

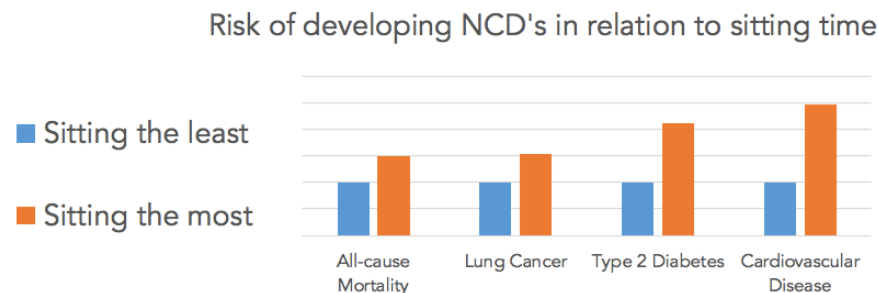
Interventions aimed at access to facilities, and the physical environment of the office, are found to be most successful for reducing sedentary time.

- secure bike racks,
- workplace layout (printers further away from workstations);
- modified workstations, i.e. active workstations where people can stand, walk, or cycle.



# Summing it up:

- Major efforts are made to influence lifestyle decisions to encourage better health
- Still NCD rates are dramatically on the rise, and killing more people than infectious diseases
- Incentives and tools are primarily aimed at bouts of exercise, whereas there's compelling evidence that prolonged sitting is a major contributor of the development of NCD's



- Interventions at the workplace, where most of the time every day is spent are most effective when there are changes in the physical environment





**IMPROVES  
MOOD**



**INCREASES  
CREATIVITY**



**INCREASES  
PRODUCTIVITY**



**REDUCES  
STRESS**



**PROMOTES HEALTHY  
BODY WEIGHT**



**REDUCES THE RISK  
OF TYPE-2 DIABETES**



**LOWERS BLOOD  
PRESSURE**



**HELPS MAINTAIN  
STRONG BONES**

# Compelling evidence for the use of treadmill desks

"As an intervention to increase employees' physical activity while working, the walking workstations, regardless of a person's exercise habits or body mass index (BMI), had significant benefits in terms of higher satisfaction and arousal and experienced less boredom and stress than those in the passive conditions."

Sliter et al, 2015

"Measuring performance on a 10-point scale, participants scored a point higher when using a treadmill desk compared to those who didn't"

"Daily total physical activity increased as a result of the adoption of treadmill workstations."

Ben-Ner et al, 2014

"Study participants lost as much as eight pounds over the course of a year." Koepp et al, 2013

"If sitting computer-time were replaced by walking-and-working, energy expenditure could increase by 100 kcal/h. Thus, if obese individuals were to replace time spent sitting at the computer with walking computer time by 2–3 h/day, and if other components of energy balance were constant, a weight loss of 20–30 kg/year could occur."

Levine et al, 2007

"Interrupting sitting time with frequent brief bouts of light-intensity activity, but not standing, imparts beneficial postprandial responses that may enhance cardiometabolic health. The findings may have importance in the design of effective interventions to reduce cardiometabolic disease risk."

Bailey et al, 2015

# Business Case

## Increased daily activity, and reduced sedentary hours

Achieving 10,000 steps\* a day, during a normal workday:

0 steps/hour



X calories

4,000 steps/hour



2.5\*X calories

Your healthy office solution

## Contribution to employee performance

After the adjustment period, the quality of work, quantity of work and the quality of exchanges with colleagues of those walking & working all improves.

(A Ben-Ner; 2014)

## Return on Investment

As people are more active, studies have shown weight loss, addressing obesity.

Ben-Ner:

"Weight-bearing and increasing circulation can also prevent osteoporosis, diabetes and vascular disease, with obvious benefits to employers, given how costly those maladies can be to treat. You can wipe out the cost of the fanciest treadmill in half a year of treatment,"

# Conclusion

- Current rapid development of non-communicable disease is increasingly urging organisations to take action, and look for successful interventions to get employees moving, and develop healthier lifestyles
- Sedentary lifestyles have been identified as a primary risk factor towards developing NCD's
- Interventions in the physical work environment are proven most successful
- Millennials are looking for work environments that offer flexibility, and allows for activity
- Treadmill desks, reduce sedentary hours, increase physical activity and metabolism, and improve work performance and job satisfaction
- As a shared resource, placed in a hub in office spaces, the initial investment is marginal taking its benefits to the organisation and employee health into consideration



# Procure or Lease

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Walk & Work offers various procurement options, to suit the organisation's needs:

- Rental (minimum 6 months, to ensure success can be measured with a period for adjustment to the new way of working)
- Lease-to-Own (offering you a flat monthly payment structure, to own after 1 year)
- One-off purchase

Proposals are customised for the organisation's requirements

# Join the movement!



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# Media

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Espresso Morning Show

<http://walkandwork.co.za/blogs/all/100995969-expresso-morning-show-on-the-dangers-of-sitting>

Hashtag Radio

<http://hashtagradio.co.za/2016/04/podcast-interview-with-elisabeth/>

Weekend Argus

<http://www.iol.co.za/weekend-argus/just-stepping-out-for-a-cup-of-coffee-2035955>

Disrupt Africa

<http://disrupt-africa.com/2016/05/this-startup-will-help-your-startup-team-keep-fit-on-the-job/>

kykNET - Die GROOT Ontbyt

<http://walkandwork.co.za/blogs/all/die-groot-ontbyt-ondersoek-die-trapmeul-lessenaar>