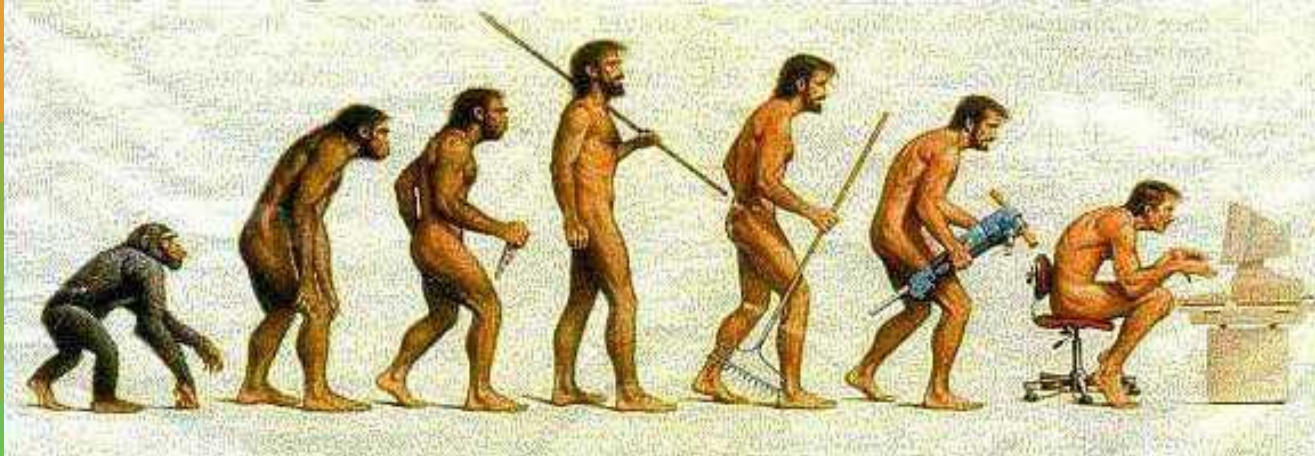


Stand up to ageing: why sitting is the new smoking



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Positive Ageing Journey
Brisbane, May 2015

Before we start...

- Please feel free to stand,
- and move
- and sit
- and stand
- and sit etc...



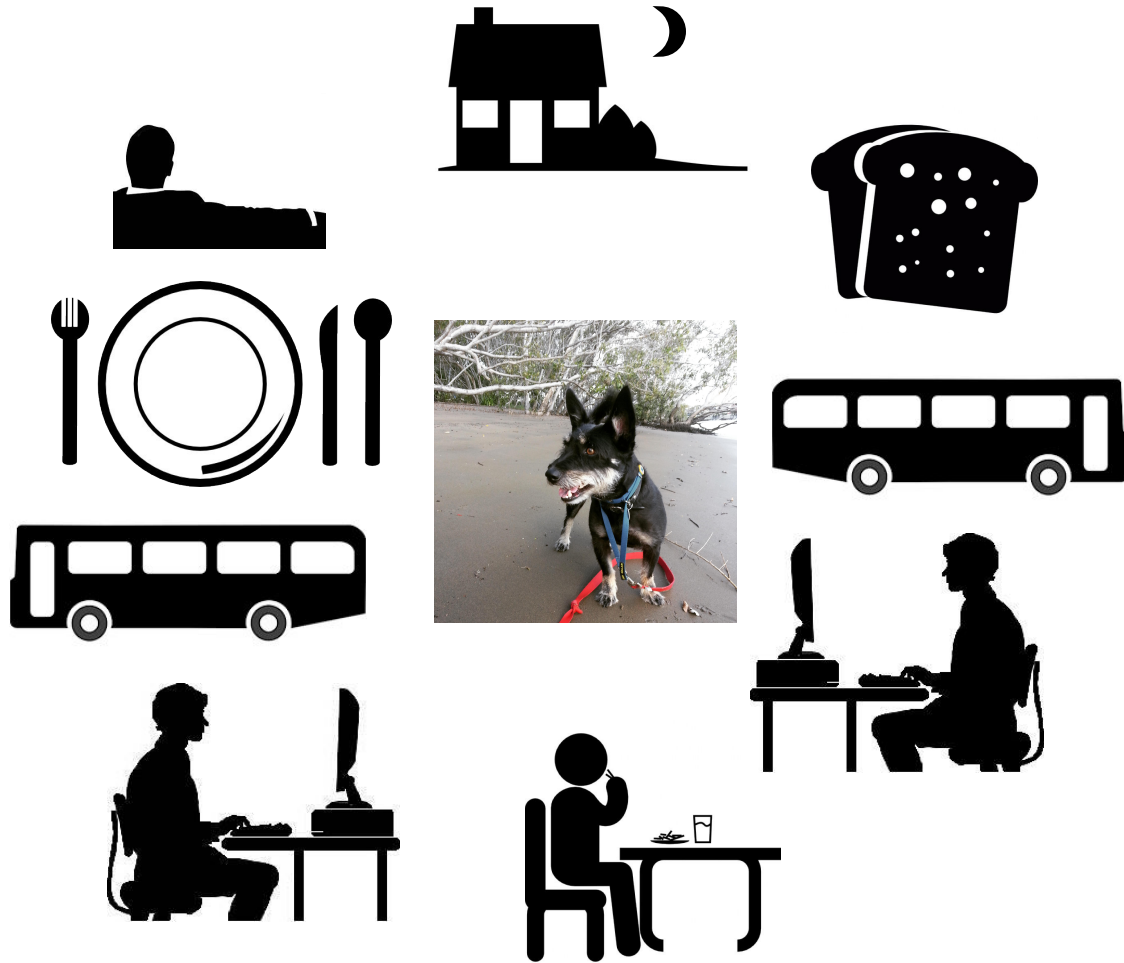
Overview

- How much sitting do people do?
- Research and the media
- Is sitting related to health?
- Tips and things to try at home

Exercise **IS** good for you!

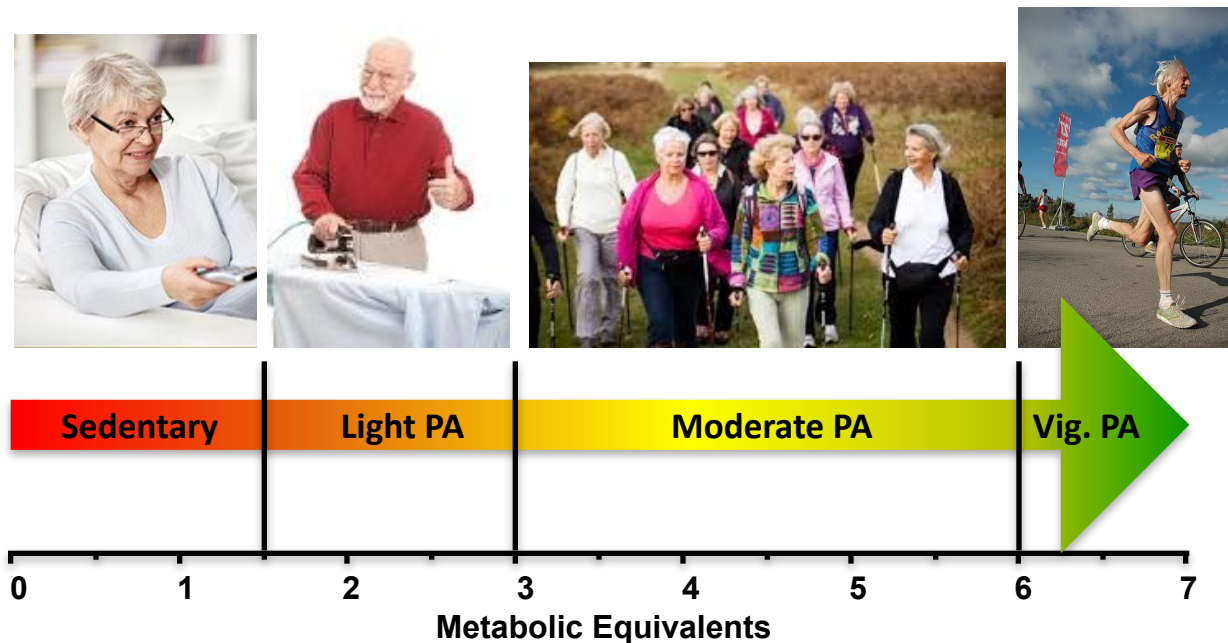


How I spend my day

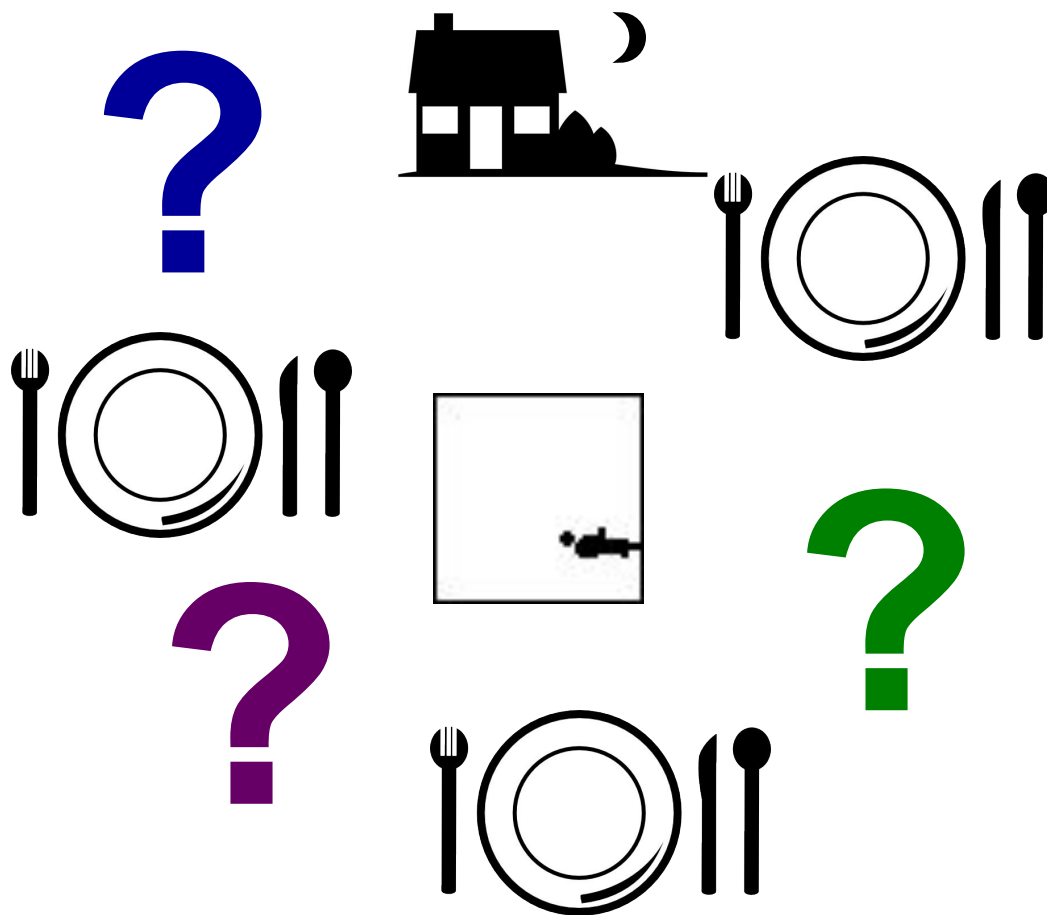


What is sedentary behaviour?

Any **waking behaviour** with low energy expenditure while in a **sitting or reclining posture**



How do you spend your day?



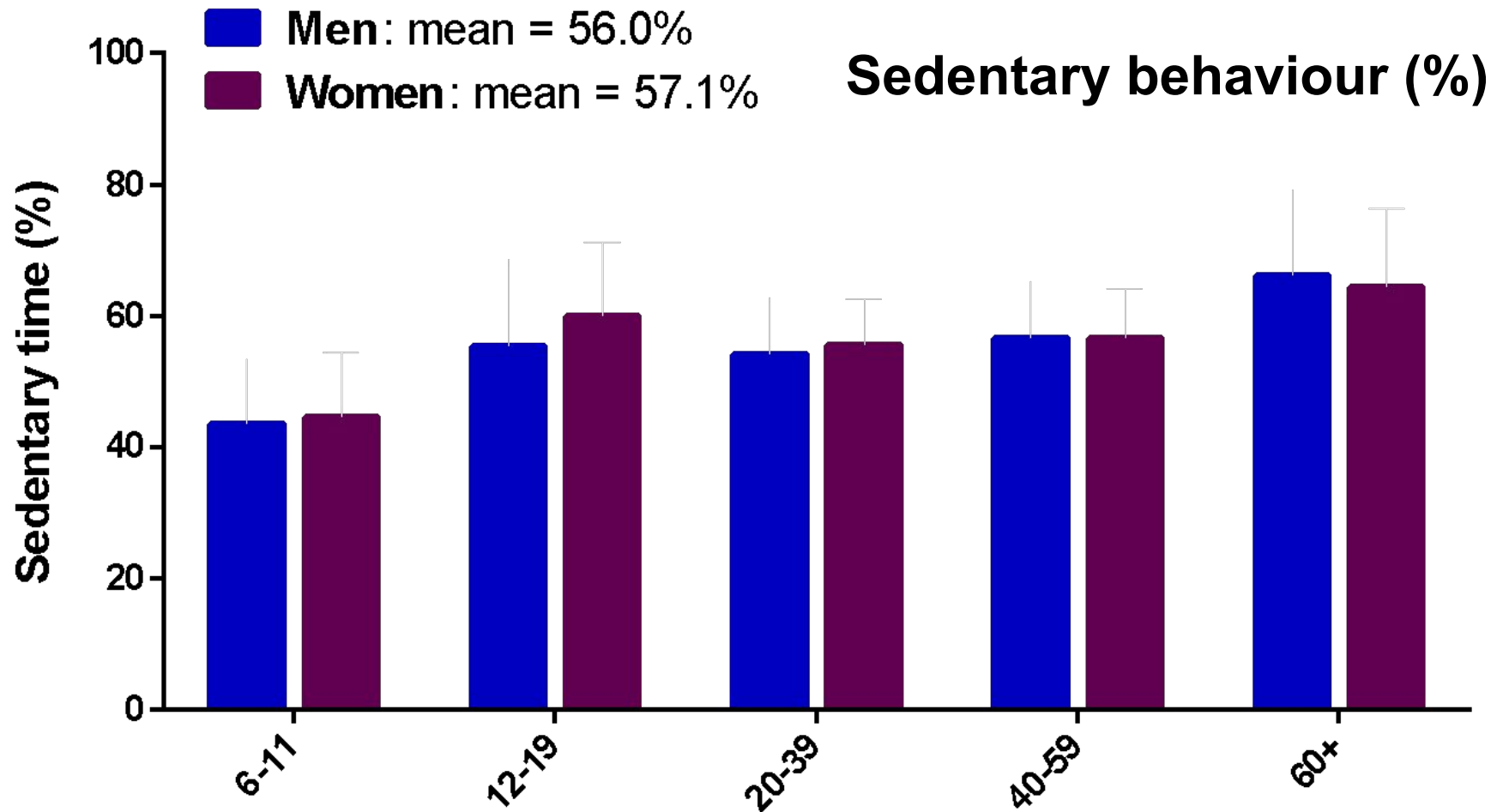
How sedentary are you?

*How much time in **total** did you spend **sitting or lying down** and*

- Working or volunteering
- In a car or using public transport
- Watching television or videos/DVDs
- Using the computer or Internet
- Eating
- Reading or doing hobbies
- Socializing with friends or family
- Doing any other activities

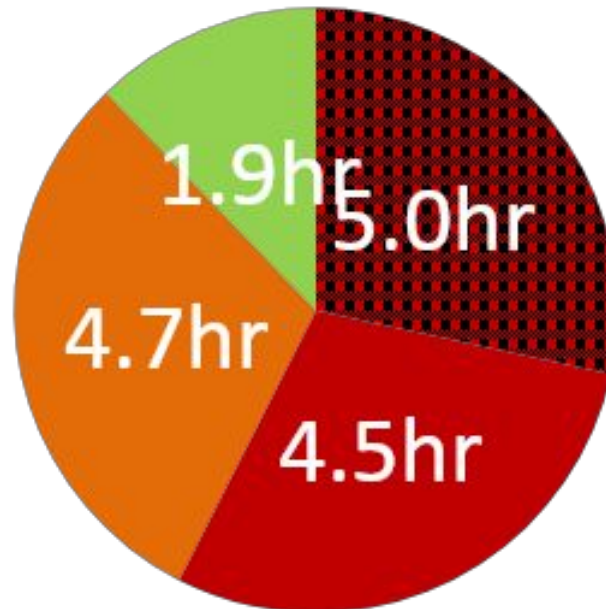
Remember to count any time in bed when you are not trying to get to sleep

Variations across the lifespan

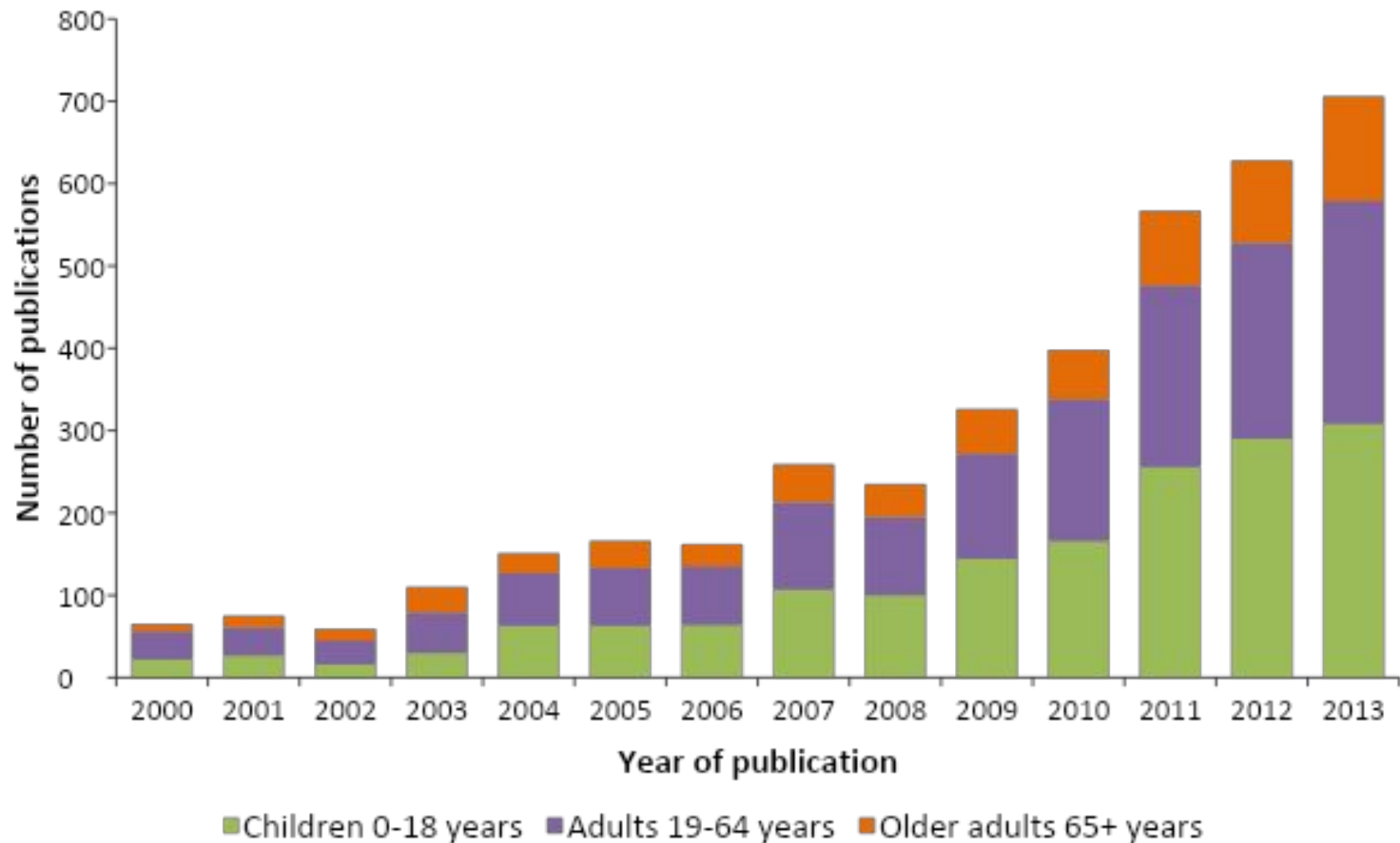


How older adults spend their time

- Time Sitting ≥ 30 mins
- Time Sitting < 30mins
- Time Standing
-



Sedentary behaviour research



Is sitting the new smoking?

**SITTING
IS THE
NEW
SMOKING**



"Since prolonged physical inactivity can have devastating effects on the body all by itself, it should be considered a disease."

Dr. Michael Joyner, Mayo Clinic



**SITTING
THE NEW
SMOKING**

Even if you're fit and active,
that desk job is seriously bad
for your health



SITTING IS THE NEW SMOKING



**Sitting is the
new smoking.**



Inactivity is putting your bones at risk.

SITTING INCREASES RISK OF DEATH UP TO 40%

Sitting 6+ hours per day makes you up to 40% likelier to die within 15 years than someone who sits less than 3. Even if you exercise.

Average Physical Activity (Waking Hours):



Studies show that only reducing sitting time helps. It's clear that sitting is killing us: but how?

HOW SITTING WRECKS YOUR BODY

As Soon As You Sit:

Electrical activity in the leg muscles shuts off

Calorie burning drops to 1 per minute

Enzymes that help break down fat drop 90%

After 2 Hours:

Good cholesterol drops 20%

After 24 Hours:

Insulin effectiveness drops 24% and risk of diabetes rises

People with sitting jobs have **twice the rate** of cardiovascular disease as people with standing jobs.

SITTING IS KILLING YOU

The Truth About Sitting Down

Sitting more time in a day KILLS you

What research reports say?

Sitting more than **6** hours a day

Decreases the life span of **men** by **20%**

Decreases the life span of **Women** by **40%**



Source: American Cancer Society

21% of **Breast cancer** complaints are because of sitting continuously

27% of **Diabetes** complaints are because of sitting more time in a day

30% of **Heart Disease** complaints are because of sitting too much time

25% of **Digestive tract cancer** complaints are because of sitting without body movements

Source: World Health Organisation(WHO) report



Smoking one cigarette reduces life span by **11 minutes** while **Watching TV** for one hour reduces life span by **22 minutes**

What are the other health risks of sitting more time in a day?

Decrease in the good **cholesterol** level up to 20%

Decrease in the utilisation of **calorie rate**

Decrease in the **insulin** level up to 24%

Increase in the risk of **obesity**

Increase in the **backache** problems

Increase in the **kidney** problems up to 30% in women

CURRENTWEEK.COM

Is Sitting More Unhealthy Than Smoking?



1 hour of sitting is as unhealthy as smoking 2 cigarettes



1 hour of sitting decreases your life expectancy by 21.8 minutes



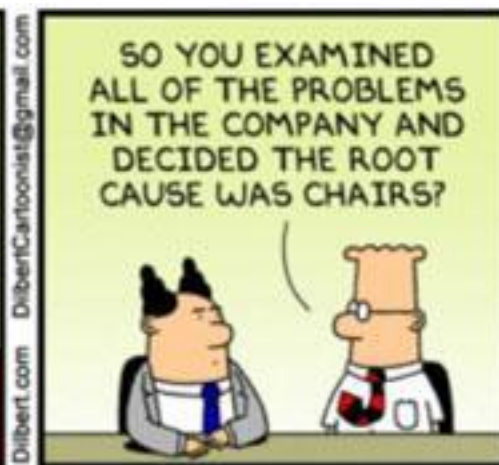
Men with 23 hours of sedentary activity per week are 64% more likely to die of heart disease



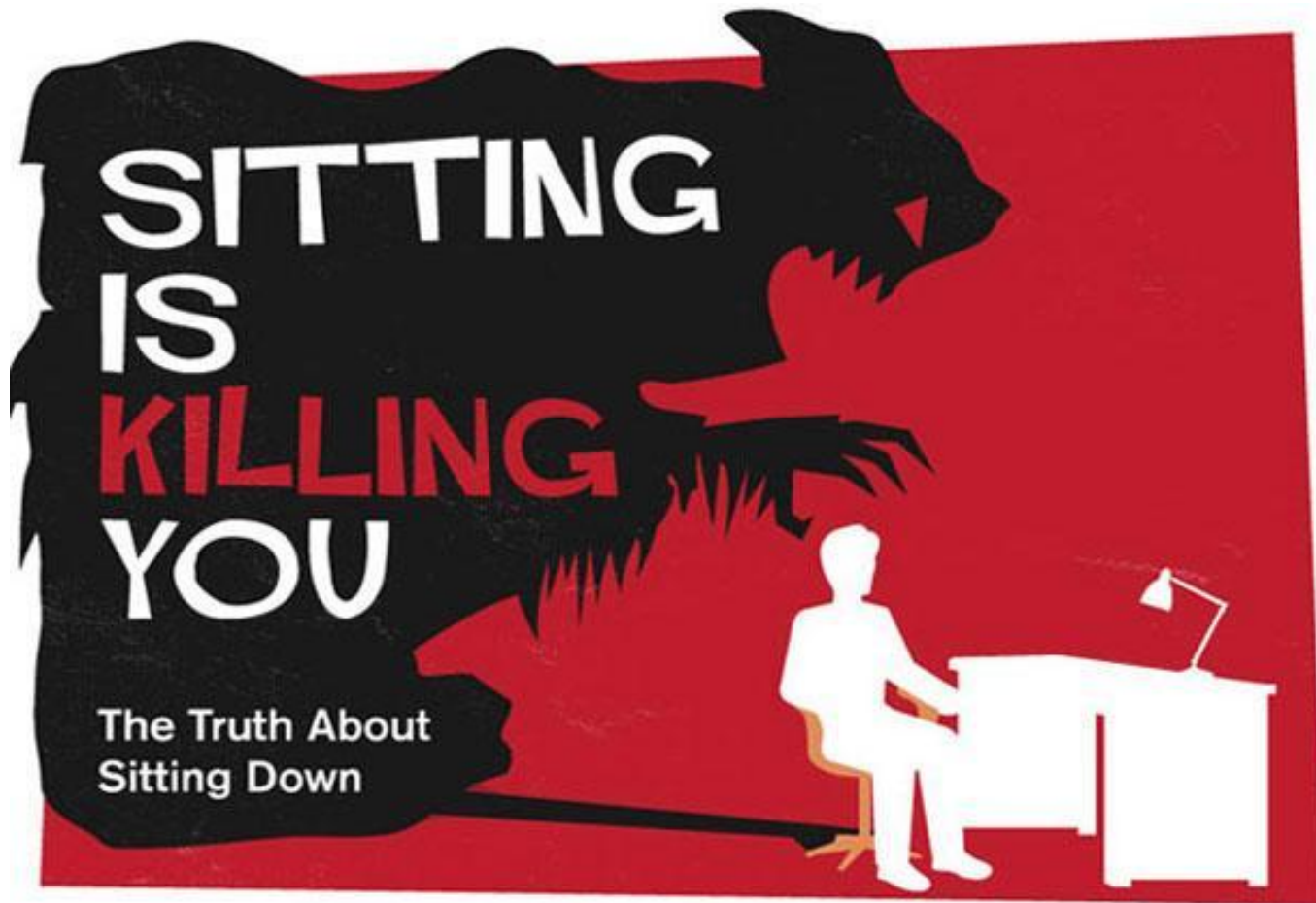
It only takes 90 minutes for the blood flow in the backs of your knees to slow by 50%

Infographic made with easel.ly

Sources:
Fact 1 and 2 - NY Times Well Blogs. <http://nytimes/taibjk>
Fact 3 - CNN. <http://bit.ly/IC460>
Fact 4 - Daily Mail.co.uk. <http://daily.mai.co.uk>



Stand Up



The landscape has changed



45 kcal/day



80 kcal/day

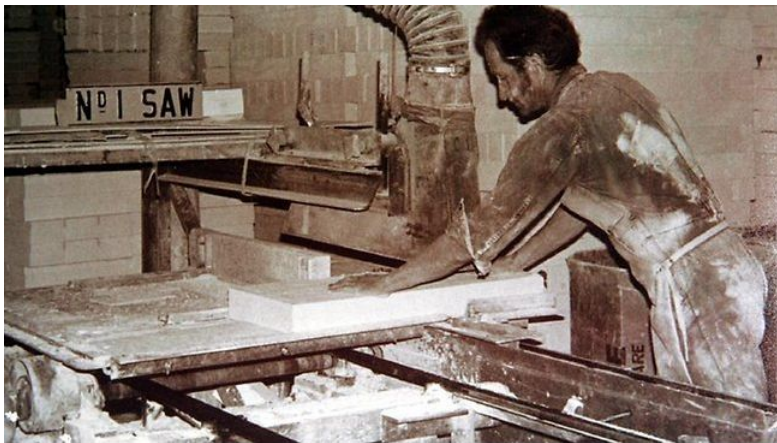


27 kcal/day



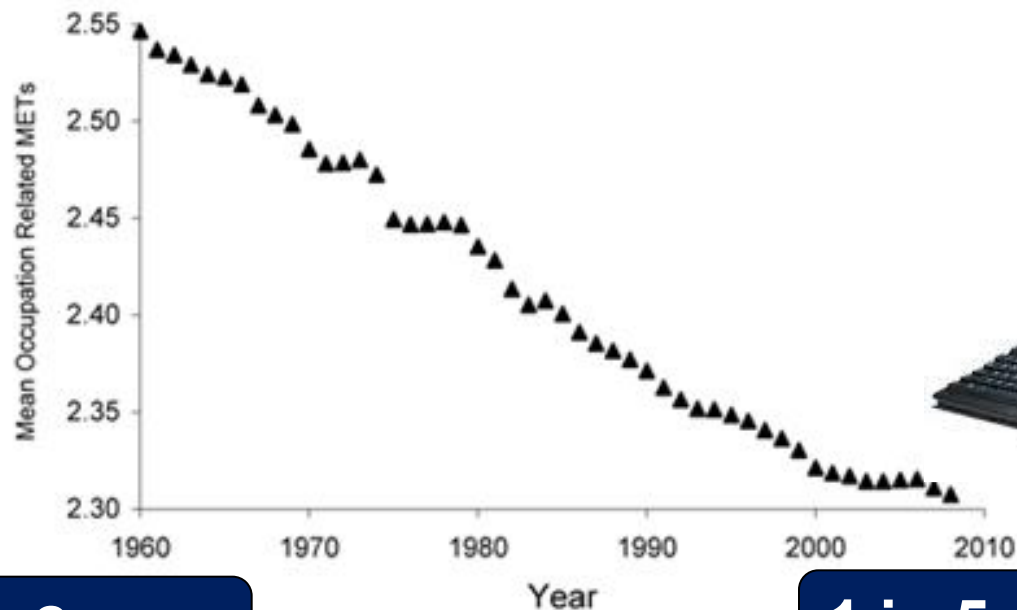
54 kcal/day





A worker in Hardie's Sydney asbestos factory in the 1950s produces building materials. Photo: News Ltd/James Croucher Source: News Limited

**Physical activity expended
at the workplace has
dropped dramatically**



1 in 2 men

1 in 5 men

Incidence of coronary heart disease

Drivers



2.7
per 1000 p.a.

• Conductors



1.9
per 1000 p.a.

Health risks of too much sitting

- High sitting time associated with:
 - Diabetes
 - Cardiovascular diseases
 - Cardiovascular & all-cause mortality
 - Musculoskeletal symptoms
 - Chronic kidney disease
 - Colon cancer
 - Weight gain & development of obesity
 - Metabolic syndrome
 - Metabolism changes
 - + + + +



Health risks of too much sitting

TV viewing
>4 vs. <1
hrs/day

- High sitting time with TV viewing

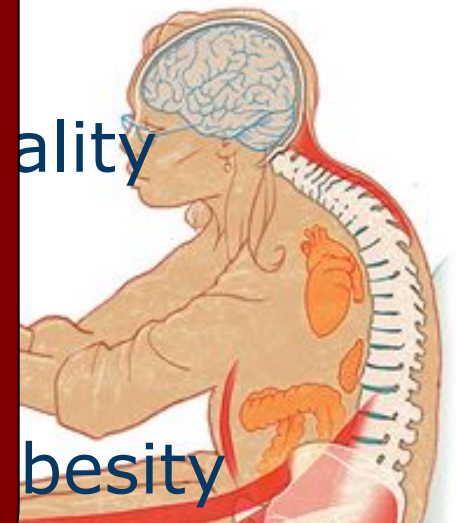
HIGH sitters had:

- **2 x risk** of developing diabetes
- **2 x risk** of developing or dying from cardiovascular disease
- **1.5 x risk** of dying prematurely

Compared to LOW sitters

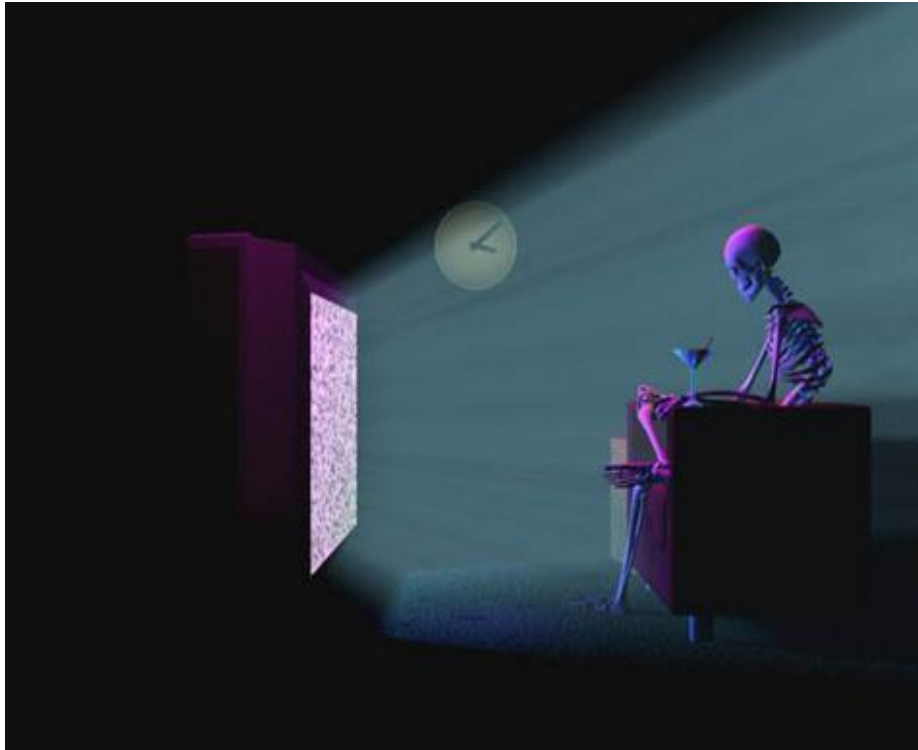
Metabolism changes

++++



Sitting
>8 vs. <3
hrs/day

Prolonged sitting and health

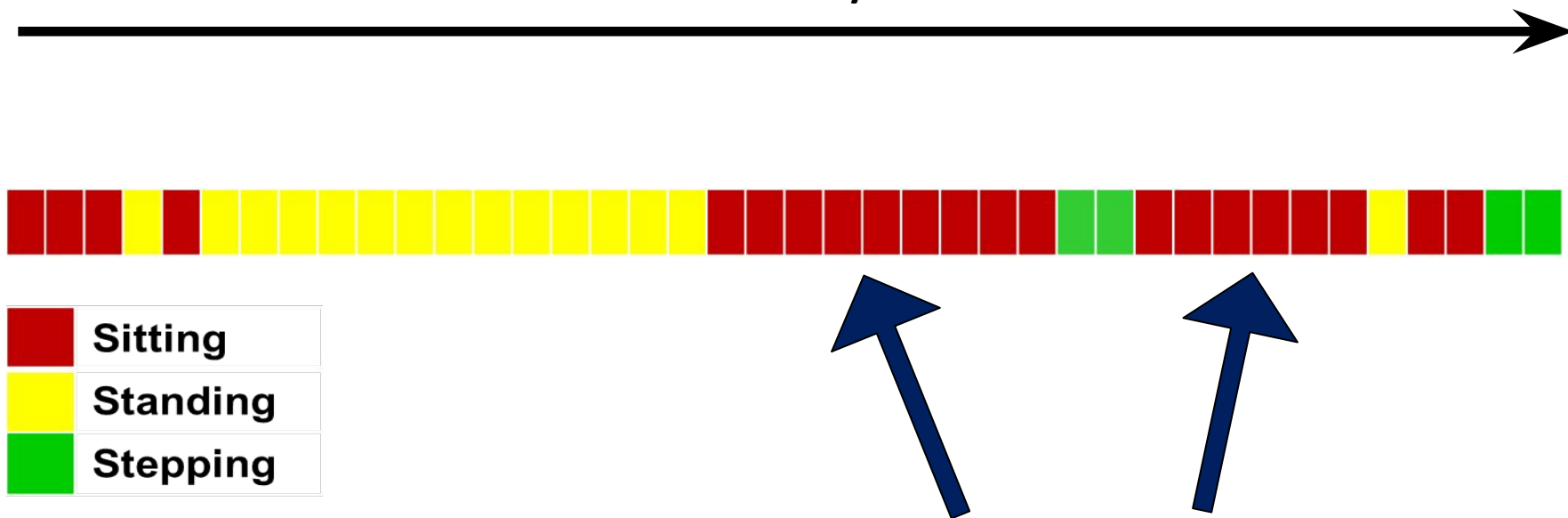


Every hour of TV viewing from age 25 reduces your life expectancy by 22 minutes

Veerman et al 2011 Br J Sp Med

It is also important how long we sit for

Time of day

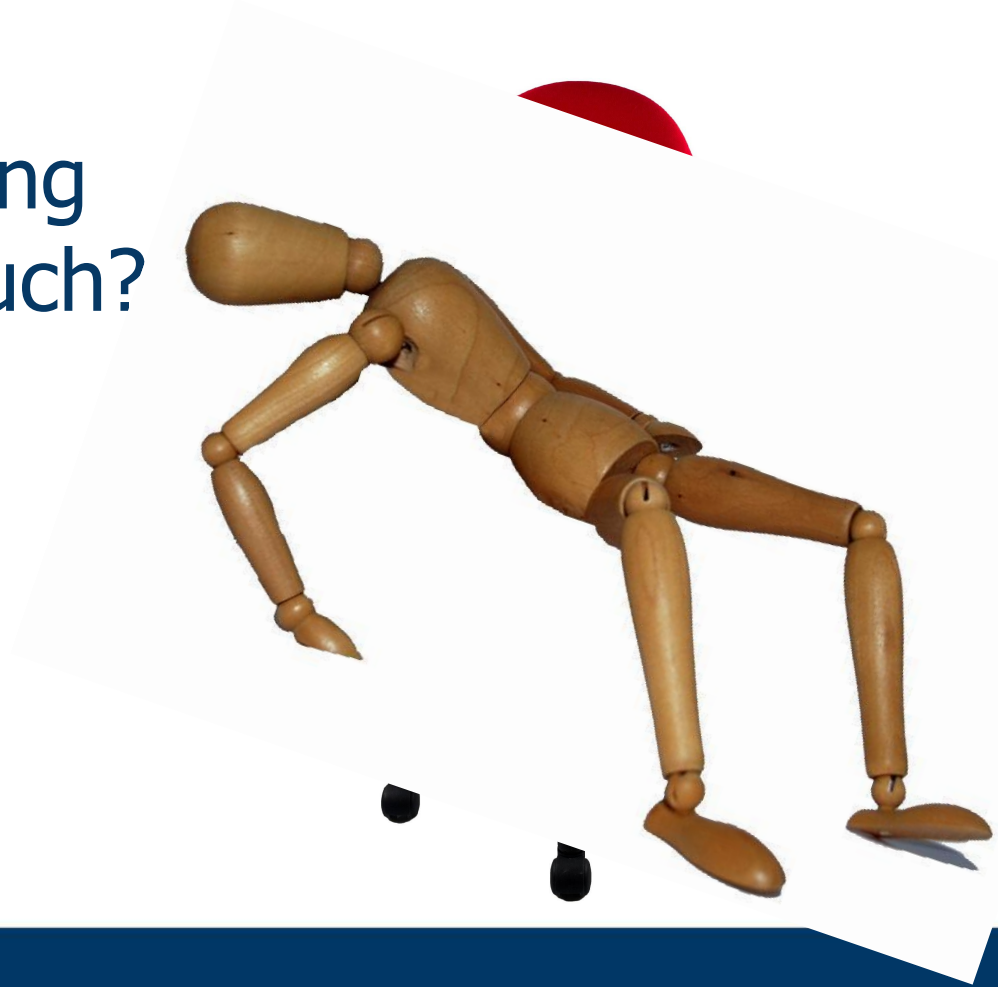


Long periods without getting up particularly detrimental

- Higher waist circumference
- Higher levels of blood fats & blood sugars

We all need to sit....

So how much sitting
is too much?



New Australian Guidelines – sitting less

- Minimize the amount of time spent in prolonged sitting
 - Break up prolonged sitting as often as possible
-
- ***Sit less throughout the day***
 - ***Stand up at least every 30 minutes***

Sitting less for adults

The arrival of the 'electronic age' has fundamentally changed how much time we spend sitting (also called being 'sedentary') at home, during travel and at work. This change has been directly linked to an increase in health problems, such as poor nutrition, obesity and insulin resistance, which can lead to diabetes. These health problems also increase your risk of developing coronary heart disease.

There are many ways in which adults can sit for long periods throughout the day. A typical day might include sitting:

- to eat breakfast
- to drive to work
- at your desk at work
- to drive home
- to eat dinner
- during the evening to do things such as watch television, use a computer and socialise.

It's very easy to sit too much – adults spend more than half of their waking hours sitting.¹⁻³ Therefore, to reduce your risk of health problems, it's important to be aware of how much you sit and try to move more throughout the day.

Why is sitting less better for your health?

Adults who sit less throughout the day have a lower risk of early death – particularly from cardiovascular disease (CVD).^{4,5}

Most research so far has been on how watching television affects health, because watching television is the most common leisure activity among adults. Adults who watch less than two hours of television a day are less likely to have type 2 diabetes or be obese, and have a lower risk of developing CVD.⁶ The reverse is also true – the more time an adult spends watching television, the higher their risk of health problems.

Adults who do regular planned exercise, such as going to the gym or running, can still sit for long periods of time every day. Figure 1 (see page two) shows how easy it is for an adult to spend a large amount of time sitting during a typical working day. In this example, the adult gets 60 minutes of physical activity that day through a brisk walk in the morning and strength training in the evening. However, they also spend 15 hours (over 90% of total waking hours) sitting.

If an adult meets the Australian Government's physical activity recommendations of 30 minutes or more moderate-intensity physical activity on most, if not all, days of the week, they are classified as 'physically active'. However, adults may increase their health benefits if they also sit less during the day. In fact, new evidence suggests that, no matter what your total sitting time is, regular interruptions from sitting (even as little as standing up) may help to reduce your risk factors for developing coronary heart disease and diabetes.²⁷

Sit less, move more

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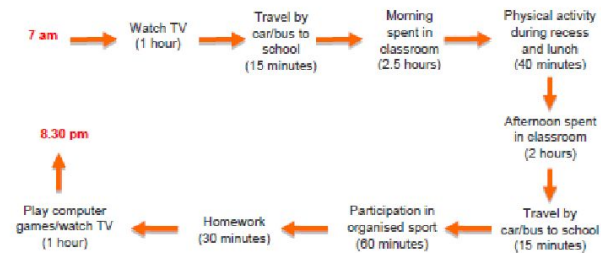
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Sitting less for children

The arrival of the 'electronic age' has fundamentally changed how much time we spend sitting (also called being 'sedentary') at home and in other places, such as at school and work. This change has been directly linked to an increase in health problems, such as poor nutrition, obesity and insulin resistance, which can lead to diabetes. These health problems increase your risk of developing coronary heart disease.

There are many opportunities for children and young people to sit for long periods of time. Even children and young people who play sport after school and meet the *Physical Activity Recommendations for Children and Adolescents*¹ can still spend large amounts of the day sitting. See Figure 1 below for an example of what may be a typical child's day.

Figure 1. Example of a child's sitting time during one day (total sitting time 7.5 hours)



Because it's so easy for children and young people to sit too much, it's important for parents/ carers, teachers and child care workers to encourage them to sit less and move more.

Why is sitting less better for children and young people?

Sitting less helps to reduce the risk of children and young people developing health and other problems in later life.

Watching television, using a computer and playing electronic games, which usually involve sitting for long periods of time, are a big part of children's and young people's leisure time. Therefore, children and young people who spend less time doing these things have better health than those who spend too much time doing these things.

Sit less, move more

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http://www.heartfoundation.org.au/Healthy_Living/Physical_Activity/Pages/default.asp

Programs to change prolonged sitting

- Stand Up For Your Health, Brisbane
- Every Day Activity Supports You, Vancouver
- Take A Break from Sitting, Seattle
- Small Steps, Adelaide
- Stand Up and Go, Melbourne

What worked for people

- Time-of-day
 - Break up sitting time during the evening
 - Constant pattern of activity to avoid 'slumps'
 - Extending activities
- Displacement
 - 'Buy' sitting time by increasing activity
- Replacement
 - Substitute seated activities with standing
- Reminders
 - Set timers to limit sitting

Try this out at home

- Place the remote next to the TV so you have to get off the couch to change the channel
- Do your ironing while watching TV
- Stand up and walk around when talking on the telephone
- Plan regular breaks when using the computer or reading
- Stand up and stretch regularly
- Extend your activities, e.g. hang the washing out in 3 trips

Thank you for listening

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