



**Every move counts:
implications for behaviour
change support**

Physical Activity and Lifestyle module: blended intensive program 2022

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PHYSICAL ACTIVITY HEALTH OUTCOMES



Benefits health



Improves sleep



Maintains healthy weight



Manages stress



Improves quality of life

Reduces your chance of

Type II Diabetes

-40%

Cardiovascular disease

-35%

Falls, depression etc.

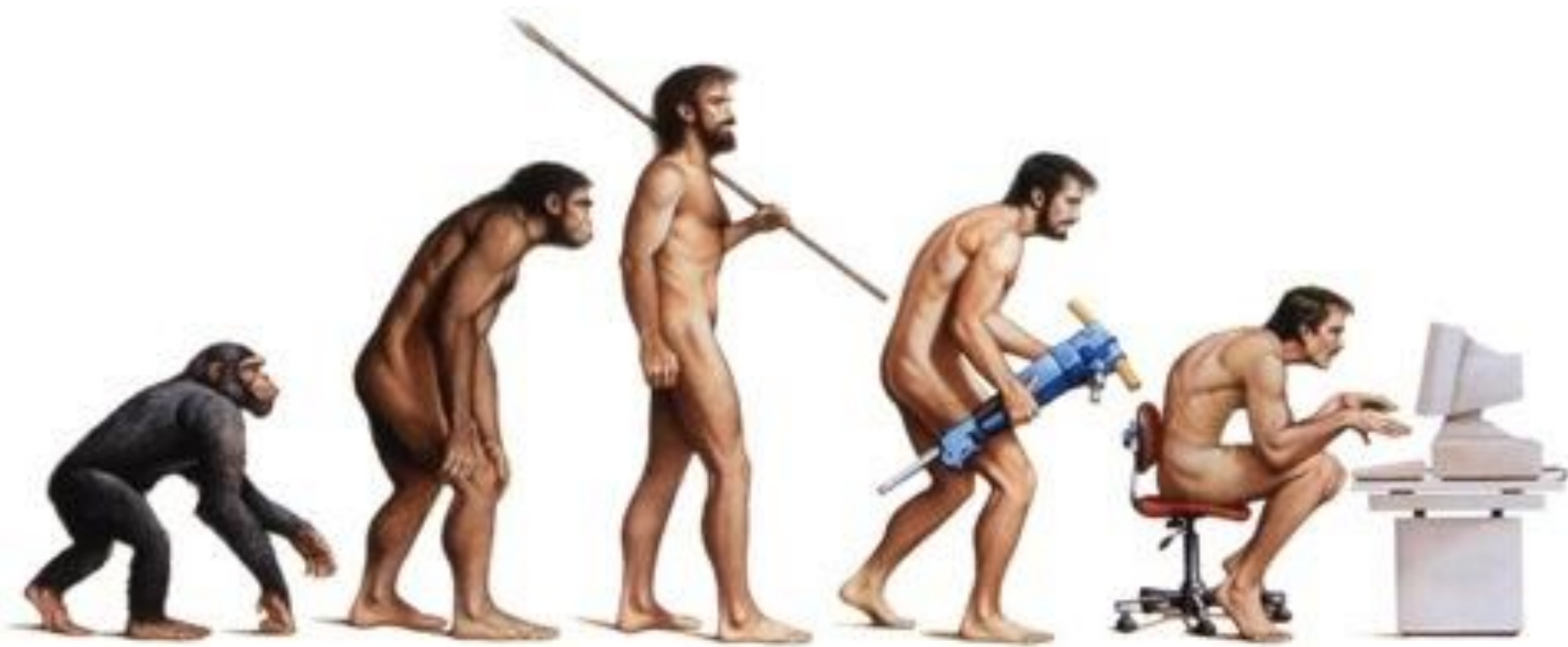
-30%

Joint and back pain

-25%

Cancers (colon and breast) -20%

DESIGNED TO MOVE



20000000
years

100 years

STARTING LINE

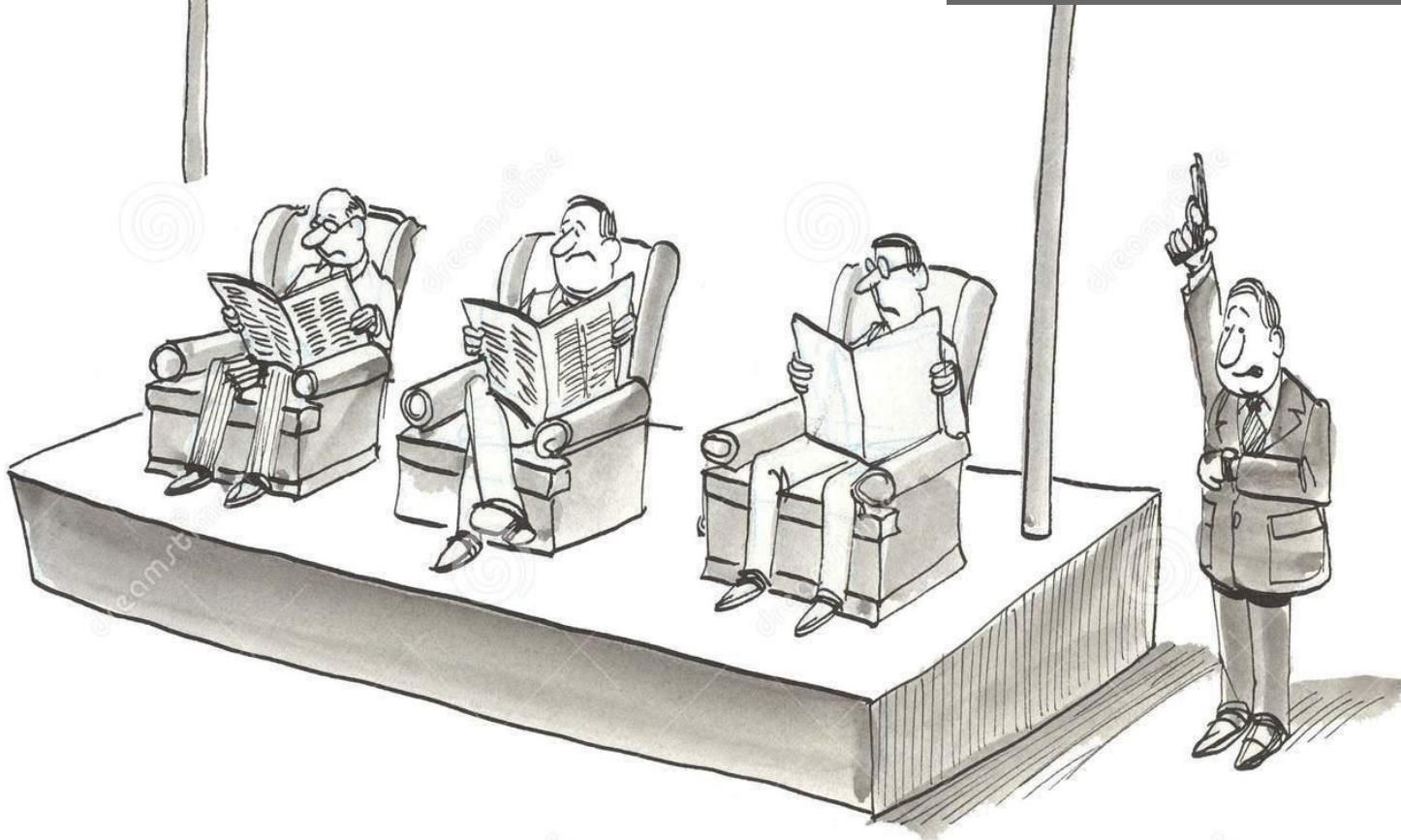
6 OUT OF 10



people in the European Union
over the age of 15 never or
seldom exercise or play sports

Every year in the WHO
European Region,
physical inactivity
causes an estimated

**1 MILLION
DEATHS**



“Ready, set ... begin your sedentary life!”



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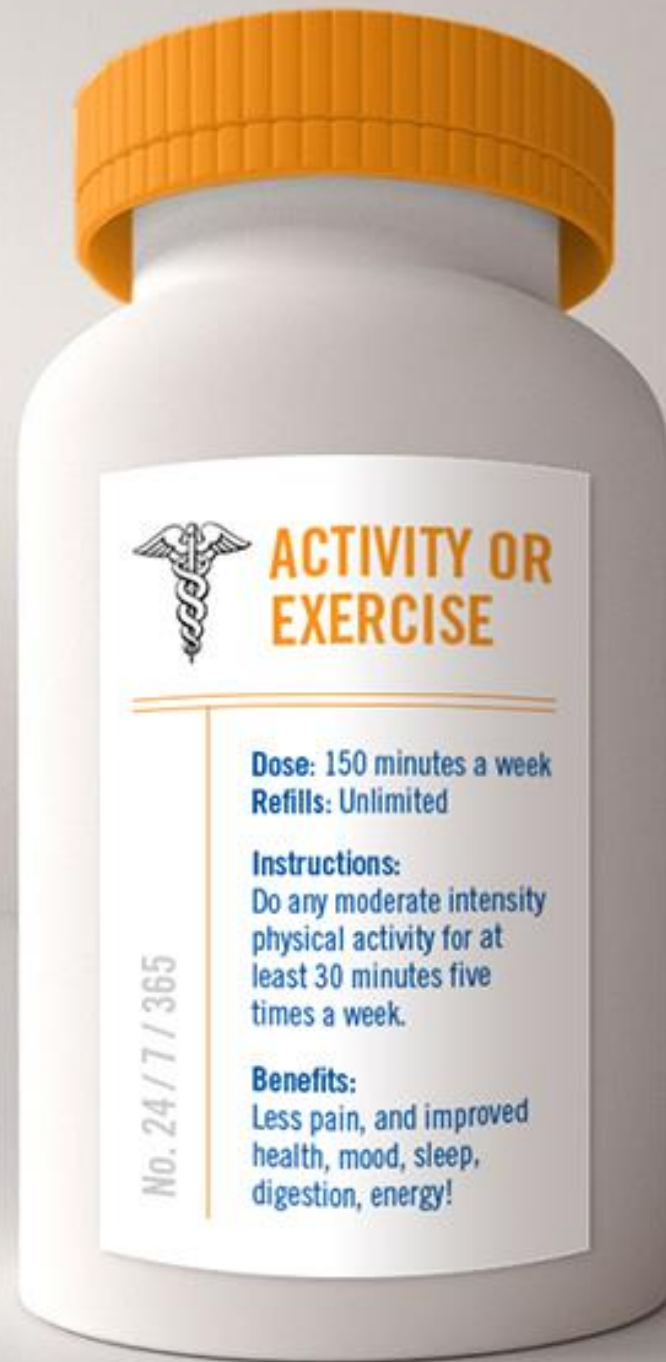


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“If exercise could be packed in a pill, it would be the simple most widely prescribed and beneficial medicine”

Robert N. Butler



MARÍA JOSÉ



NINA



What type and amount of physical activity should María José and Nina be doing to improve their health?





"I like to mix up my exercise routine. Sometimes I right click. Sometimes I double click..."

WHO GUIDELINES ON PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOUR



PHYSICAL ACTIVITY RECOMMENDATIONS

(Adults and older adults, including people living with chronic conditions and disabilities)



At least

150
to **300**
minutes

moderate-intensity
aerobic physical
activity



or

at least

75
to **150**
minutes

vigorous-intensity
aerobic physical
activity



or an equivalent combination throughout the week

Tips for Monitoring Aerobic Exercise Intensity

Substantial health benefits are gained when adults achieve 150-300 minutes per week of moderate intensity exercise, or 75-150 minutes of vigorous intensity exercise per week. Several tools and methods are used to monitor exercise intensity. Utilizing these methods help adults achieve physical activity goals.



Talk test is a way to gauge exercise intensity based on ability to carry on a conversation.



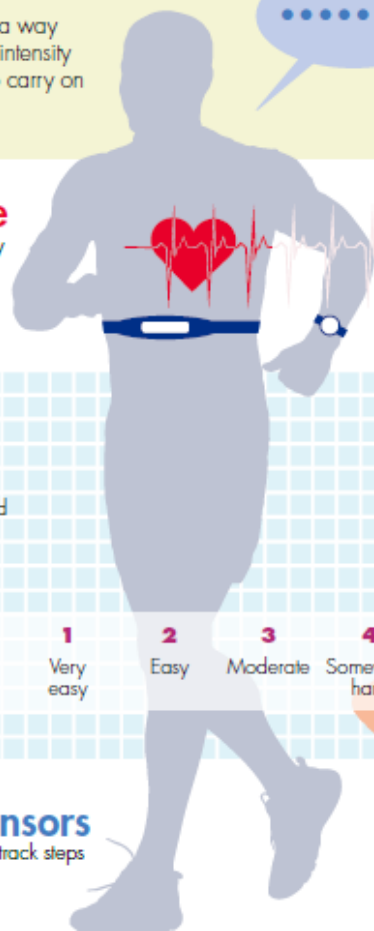
Steady conversation is associated with moderate intensity aerobic exercise.



Vigorous intensity is an exercise intensity where only a few words are sustainable.

Heart rate

can be monitored by using a wrist watch and chest strap or a smart watch.



- A percentage of maximal heart rate indicates intensity (%HRmax)
- Moderate intensity exercise is estimated at 65-75 %HRmax
- Vigorous exercise is 76-96 %HRmax
- Target HR = $(220 - \text{age}) \times \%HRmax$

Perceived effort

is a subjective method to monitor how hard exercise feels.

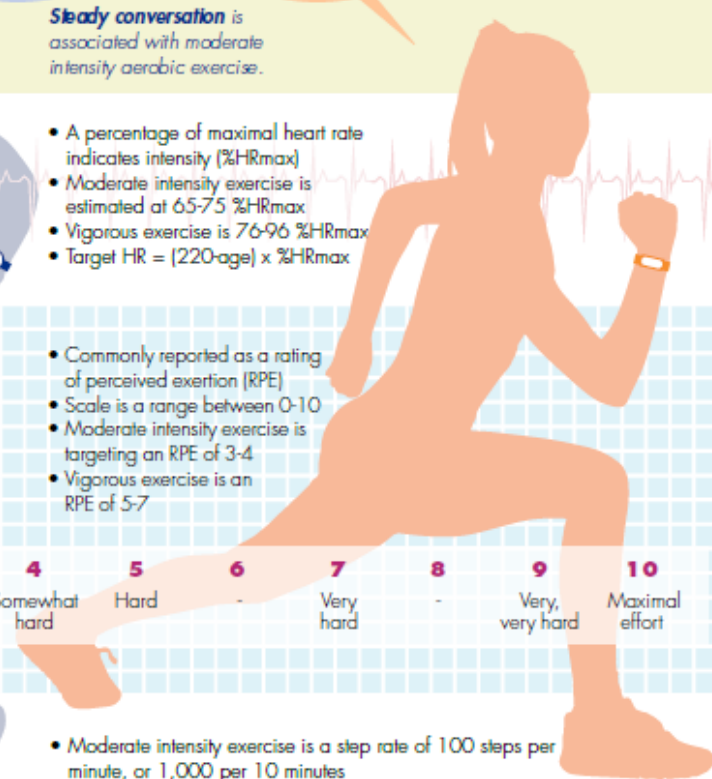
- Commonly reported as a rating of perceived exertion (RPE)
- Scale is a range between 0-10
- Moderate intensity exercise is targeting an RPE of 3-4
- Vigorous exercise is an RPE of 5-7

| Rating | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------|------|-----------|------|----------|---------------|------|---|-----------|---|-----------------|----------------|
| Descriptor | Rest | Very easy | Easy | Moderate | Somewhat hard | Hard | - | Very hard | - | Very, very hard | Maximal effort |

Motion sensors

are devices used to track steps and other activities.

- Moderate intensity exercise is a step rate of 100 steps per minute, or 1,000 per 10 minutes
- A common recommendation is to achieve 3,000 steps in 30 minutes
- Vigorous intensity is > 100 steps per minute.





For additional health benefits:

more than

300
minutes

**moderate-intensity
aerobic physical
activity**



or

more than

150
minutes

**vigorous-intensity
aerobic physical
activity**



or an equivalent combination throughout the week

For additional health benefits:

On at least



2

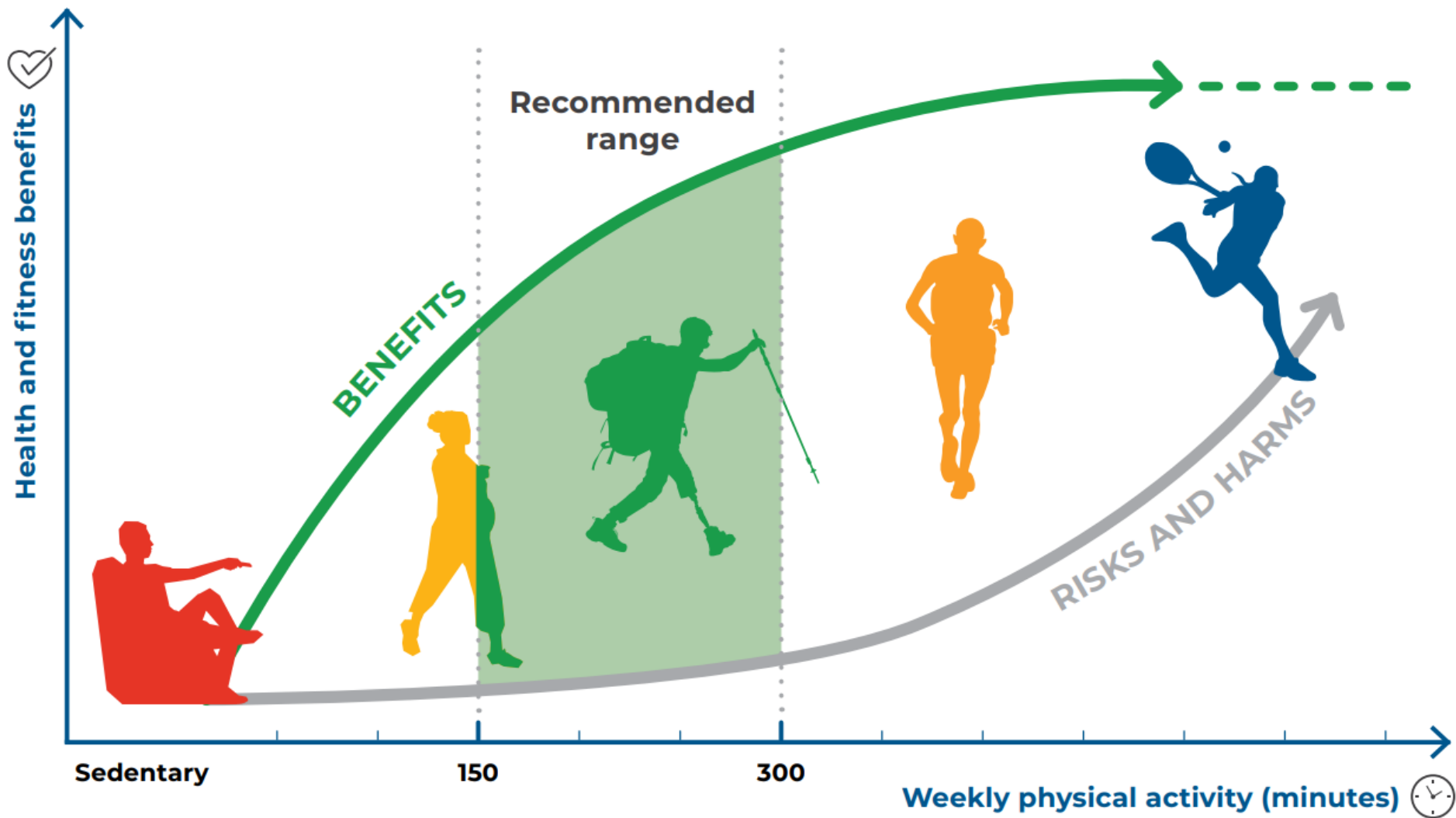
days
a week

muscle-strengthening activities at moderate or greater intensity that involve all major muscle groups.



Strength Training for Adults

DOSE RESPONSE CURVE



Additional recommendation for older adults: Multicomponent physical activity



On at least



3
days
a week

varied
multicomponent
physical activity that
emphasizes functional
balance and strength
training at moderate
or greater intensity.



5 Exercises for Seniors to Increase Strength & Balance

1



Single Limb Stance

It's best to start off with a simple balance exercise for seniors. Here's how you do this one: stand behind a steady, solid chair (not one with wheels), and hold on to the back of it. Lift up your right foot and balance on your left foot. Hold that position for as long as you can, then switch feet.

2

Walking Heel to Toe

You might read this and wonder, "How is walking an exercise to increase balance?" This exercise makes your legs stronger, which enables you to walk without falling.



3



Rock the Boat

Stand with your feet apart so the space between them is the same width as your hips. Make sure both feet are pressed into the ground firmly. Stand straight, with your head level. Then, transfer your weight to your right foot and slowly lift your left leg off the ground. Hold that position for as long as possible (but no more than 30 seconds).

4

Clock Reach

Imagine you're standing in the center of a clock. The number 12 is directly in front of you and the number 6 is directly behind you. Hold the chair with your left hand.



5



Back Leg Raises

This strength-training exercise for seniors makes your bottom and lower back stronger. Stand behind a chair. Slowly lift your right leg straight back—don't bend your knees or point your toes. Hold that position for one second, then gently bring your leg back down. Repeat this 10 to 15 times per leg.



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Physical activity during pregnancy and after giving birth



In addition:

- > Women who, before pregnancy, habitually engaged in vigorous-intensity aerobic activity, or who were physically active, can continue these activities during pregnancy and the postpartum period.

Strong recommendation, moderate certainty evidence



SUMMARY OF GUIDANCE

| Adults 18+ years | | | | |
|--|---|-------------------------------|----------------------------|--|
| Description | Adults 18-64 years without disability/ chronic conditions | Adults ≥65 without disability | Pregnant/ Postpartum women | Adults 18+ years with disability/ chronic conditions |
| Moderate intensity ≥150 min/week | | | ✓ | |
| Moderate intensity ≥150 min/week OR Vigorous intensity ≥75 min/week | ✓ | ✓ | | ✓ |
| Muscle strengthening activities (Moderate intensity or greater) | ✓ | ✓ | | ✓ |
| Functional balance & strength training activities (Moderate intensity or greater) | ✓ | ✓ | | ✓ |
| Moderate intensity >300 min/week OR Vigorous intensity >150 min/week for additional benefits | ✓ | ✓ | | ✓ |



SEDENTARY BEHAVIOUR RECOMMENDATIONS

LIMIT

the amount of time spent being sedentary



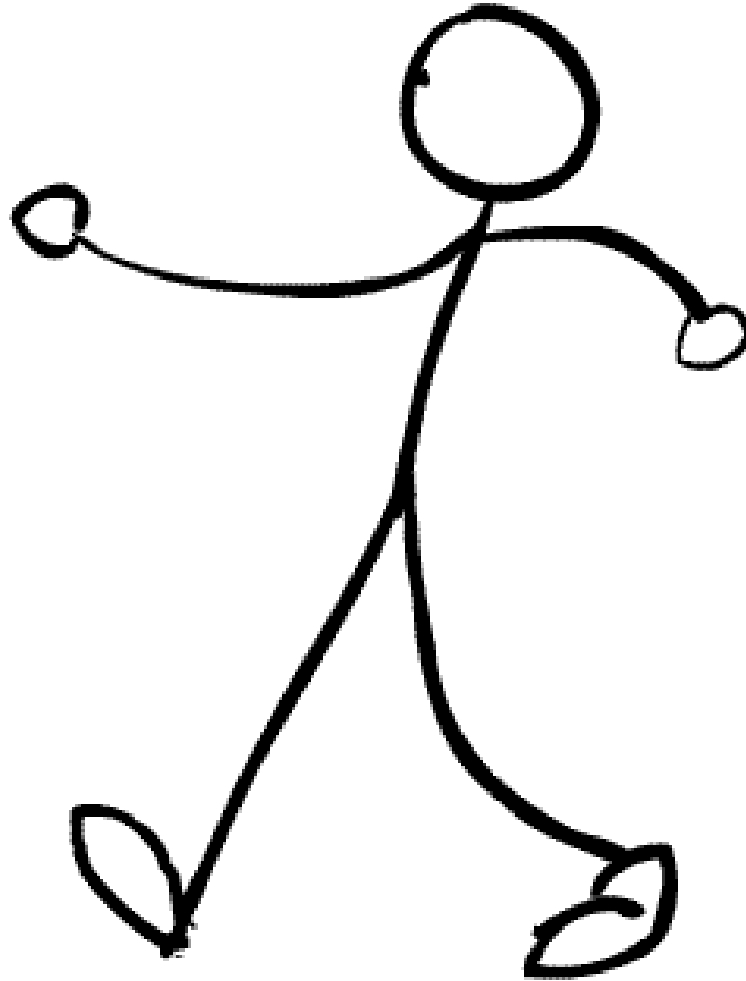
REPLACE

with more physical activity of any intensity (including light intensity).

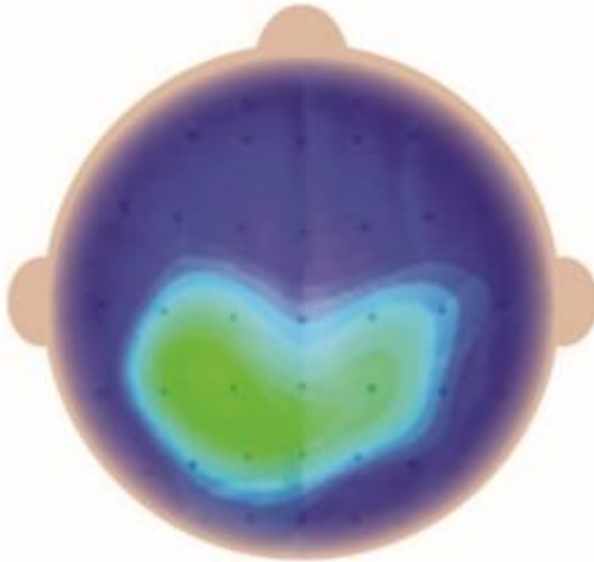




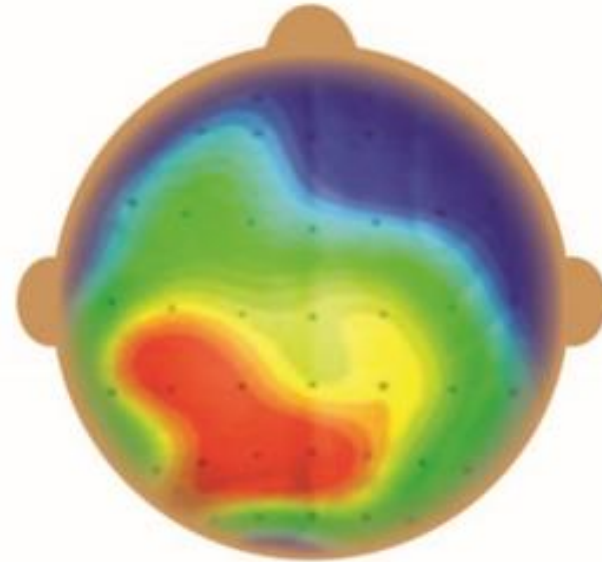
¡TIME TO ONE MINUTE WALKING BREAK!



BRAIN SCANS OF STUDENTS TAKING A TEST:



after 20 minutes of
sitting quietly

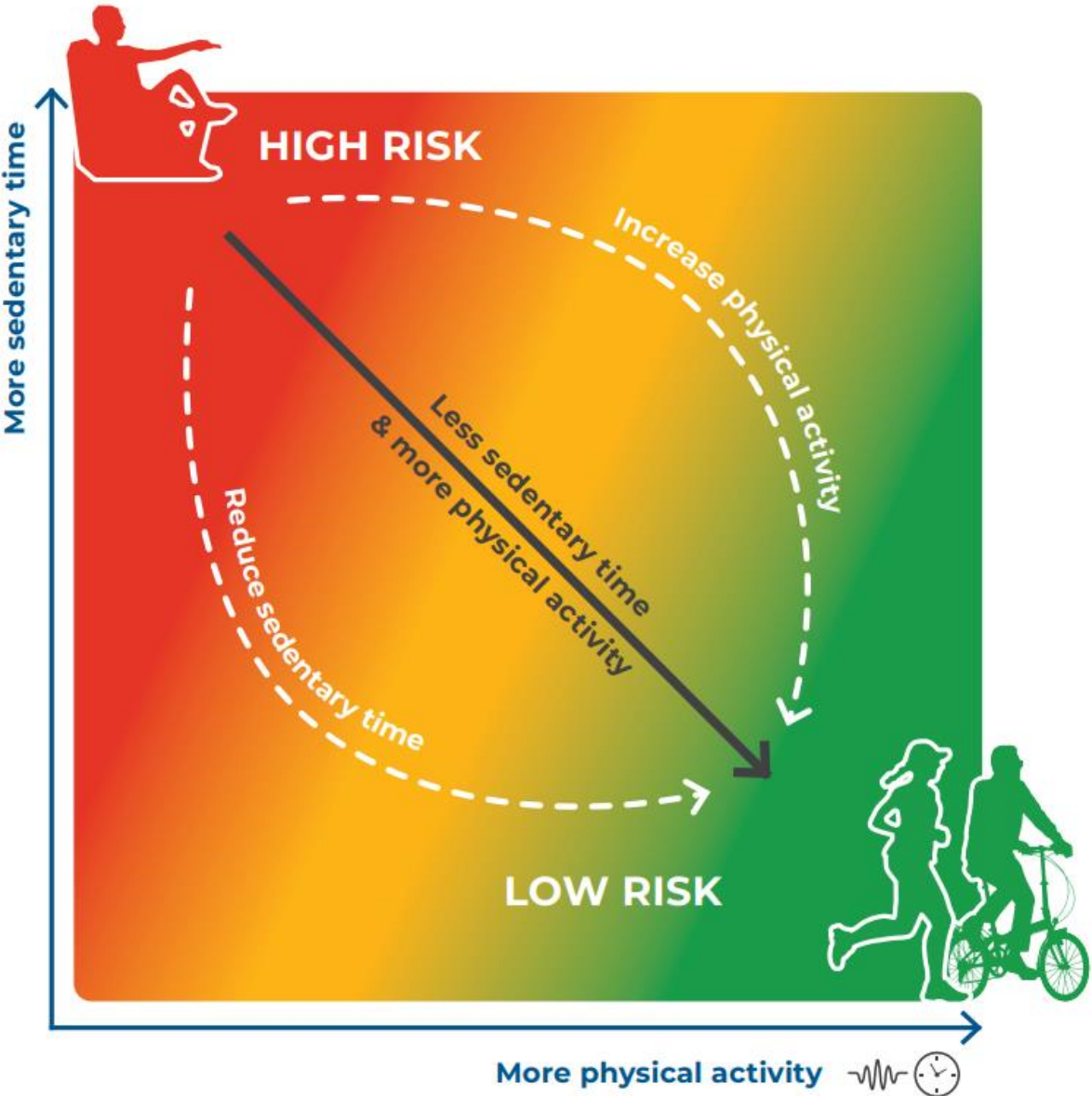


after 20 minutes of
walking



Red areas are very active; blue areas are least active.

RELATIONSHIP BETWEEN LEVELS OF SEDENTARY BEHAVIOUR AND PHYSICAL ACTIVITY





Articles

Does physical activity attenuate, or even eliminate, the detrimental association of sitting time with mortality? A harmonised meta-analysis of data from more than 1 million men and women

The SIT-ACT risk matrix

Risk of death

| | |
|----------------|------------------------------|
| Low | Equivalent risk to reference |
| Low to medium | 1–15% increased risk |
| Medium | ≥15 to <30% increased risk |
| Medium to high | ≥30 to <45% increased risk |
| High | ≥45% increased risk |

During a usual 24-hour day, approximately how many hours do you spend sitting?



Hours of sitting per day

During a usual 24-hour day, approximately how much time (minutes) do you spend doing physical activity?





Minutes of physical activity per day

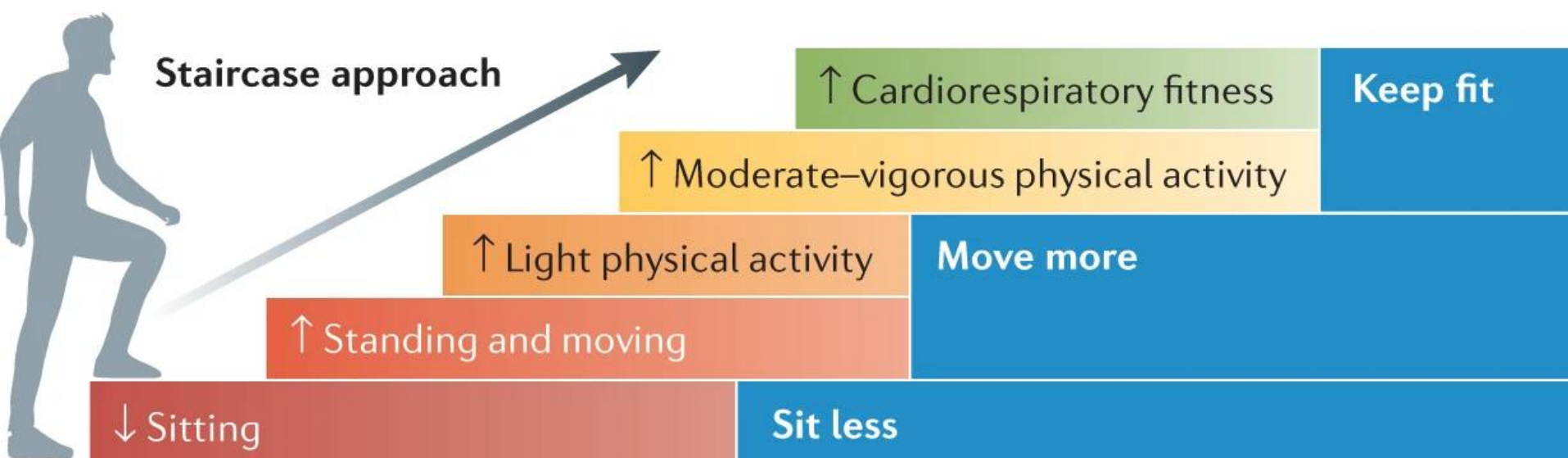
| | <4 | 4–6 | 6–8 | >8 |
|-------|------------|-------------|-------------|------------|
| >60 | Low | Low | Low | Low |
| 30–60 | Low | Low–medium | Low–medium | Low–medium |
| 5–29 | Low–medium | Medium | Medium | Medium |
| <5 | Medium | Medium–high | Medium–high | High |

Dunstan, D. W., Dogra, S., Carter, S. E., & Owen, N. (2021). Sit less and move more for cardiovascular health: Emerging insights and opportunities. *Nature Reviews Cardiology*, 18(9), 637–648. <https://doi.org/10.1038/s41569-021-00547-y>

Ekelund, U. et al. (2016). Does physical activity attenuate, or even eliminate, the detrimental association of sitting time with mortality? A harmonised meta-analysis of data from more than 1 million men and women. *Lancet* 388, 1302–1310 (2016).

Sit less and move more for cardiovascular health: emerging insights and opportunities

David W. Dunstan ^{1,2}✉, Shilpa Dogra³, Sophie E. Carter⁴ and Neville Owen ^{5,6}



The “sitting less and moving more” strategy

To meet or not to meet... the previous WHO recommendations

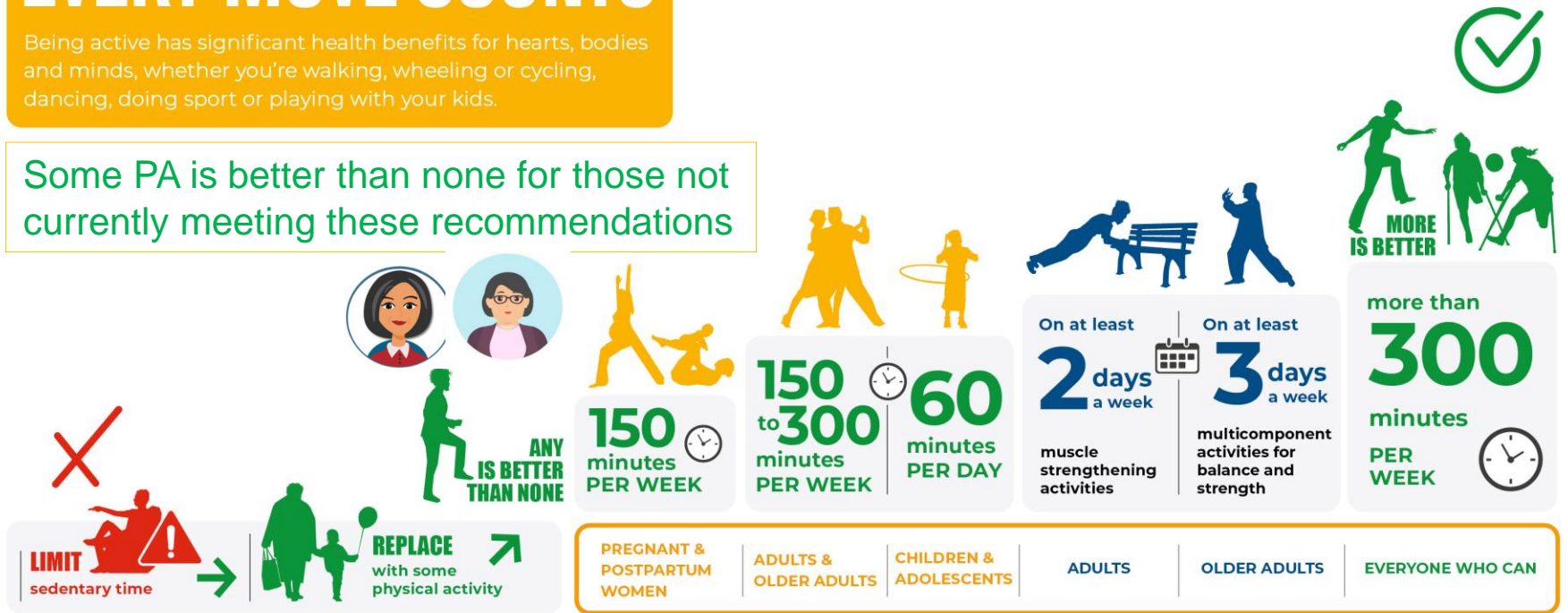


2020 WHO PARADIGM

EVERY MOVE COUNTS

Being active has significant health benefits for hearts, bodies and minds, whether you're walking, wheeling or cycling, dancing, doing sport or playing with your kids.

Some PA is better than none for those not currently meeting these recommendations



Individuals should start with small amounts of PA and gradually increase frequency, intensity and duration

WHO guidelines on physical activity and sedentary behaviour (2020).

For more information, visit: www.who.int/health-topics/physical-activity





Park farther away



Take more trips



**Take
the stairs**

**Walk
around during
commercials**



Ways to Be Physically Active

WANT TO KNOW MORE?

- [2020 WHO Guidelines report](#)
- [2020 WHO Guidelines report \(Evidence Profiles\)](#)
- [British Journal of Sports Medicine special issue on the 2020 WHO Guidelines](#)
- [Paper summarising the new 2020 WHO guidelines on physical activity and sedentary behaviour](#)
- [International Journal of Behavioural Nutrition and Physical Activity 2020 WHO guidelines collection](#)



NINA



MARÍA JOSÉ



**GOOD LUCK WITH MARÍA JOSÉ AND
NINA'S CASES!**