



Public Health  
England



# Physical activity for the management and prevention of disease

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Physical Activity Clinical Champions 2019-20



# Learning Outcomes

This training session will help you:

1. Understand the benefits of physical activity for improving patient health and outcomes.
2. Learn the UK Chief Medical Officers' physical activity guidelines.
3. Develop knowledge, skills and confidence to deliver brief advice.



# Introductions

*Portfolio GP*

*Consultant in Public Health*

*CCG clinical lead diabetes prevention*

*PHE SW Physical Activity Clinical Champion*

*And you?*

*Clinical?*

*Expert amateur?*

*Keen exerciser*



# Plan for the Session

1. Setting the scene
2. Key concepts in physical activity
3. Benefits of physical activity
4. How active are we?
5. Supporting people to become more active



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# Scale of the Problem



## Decreasing activity levels

- Adults are at least 20% less active than in 1960s
- By 2030 it's predicted that we will be 35% less active

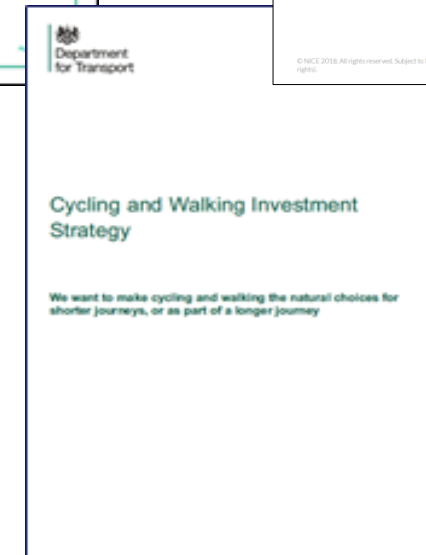
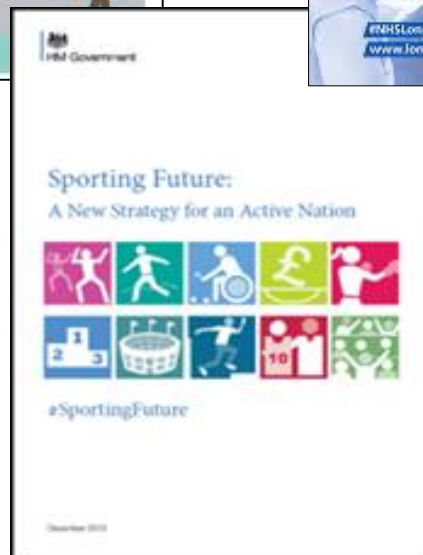
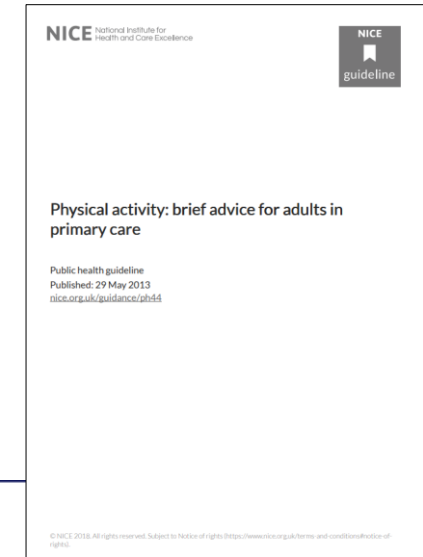
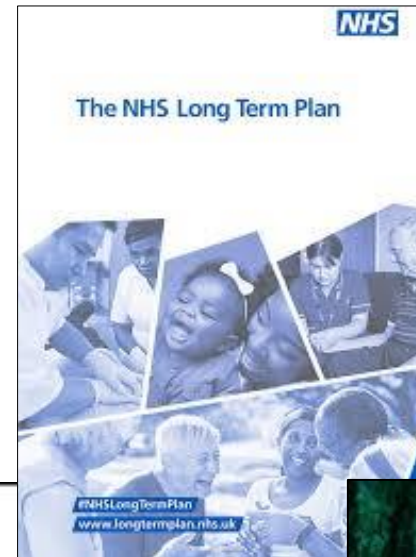
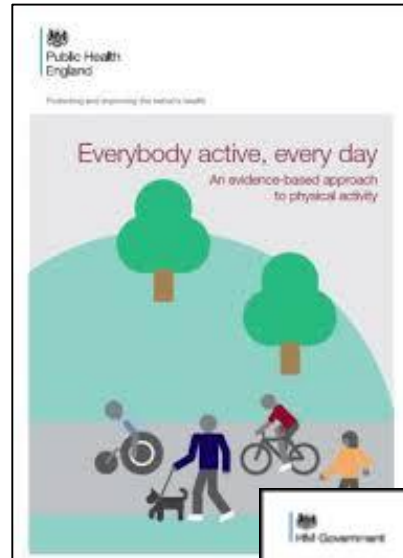
## Physical inactivity contributes to:

- 1 in 6 UK deaths
- Up to 40% of many long-term conditions
- Around 30% of later life functional limitation and falls

**Estimated annual cost to UK.....£7.4 billion**

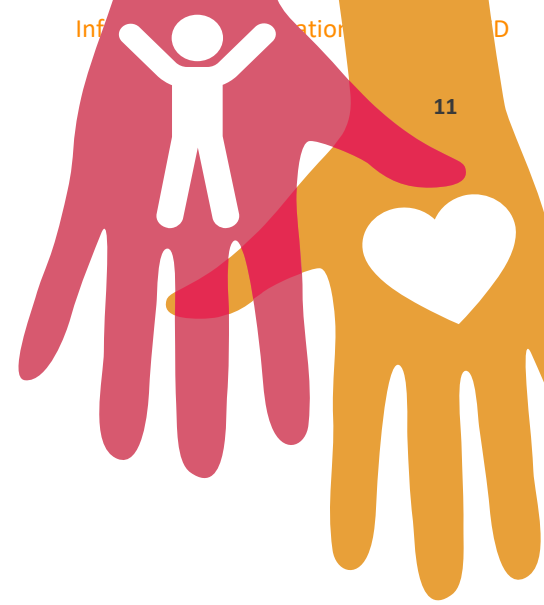


# Physical activity across policies and guidance



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# What is Physical Activity?

## Physical activity

Active  
living

Active  
travel

Active  
recreation

Active sport

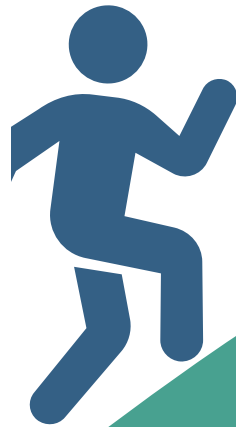
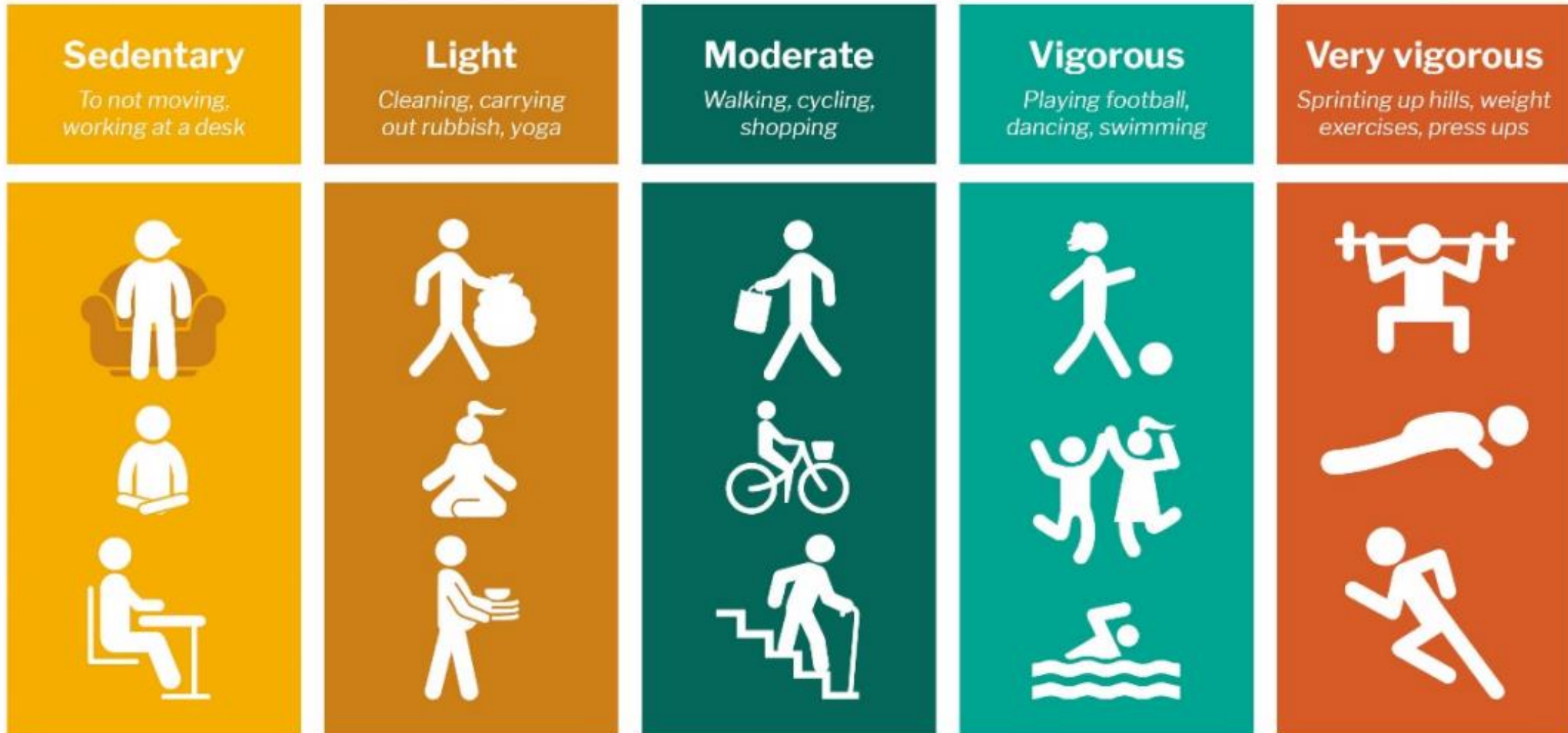
Informal  
sport

Organised  
sport



# Intensity of exercise

As the intensity increases, heart rate, respiratory rate and energy consumption also increase further



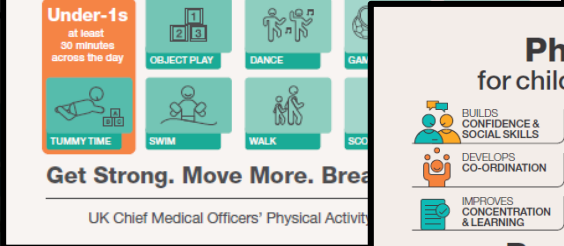
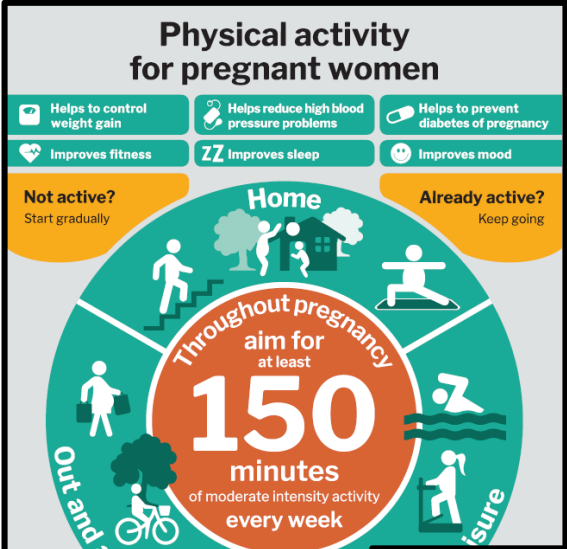
# UK Chief Medical Officers Guidelines



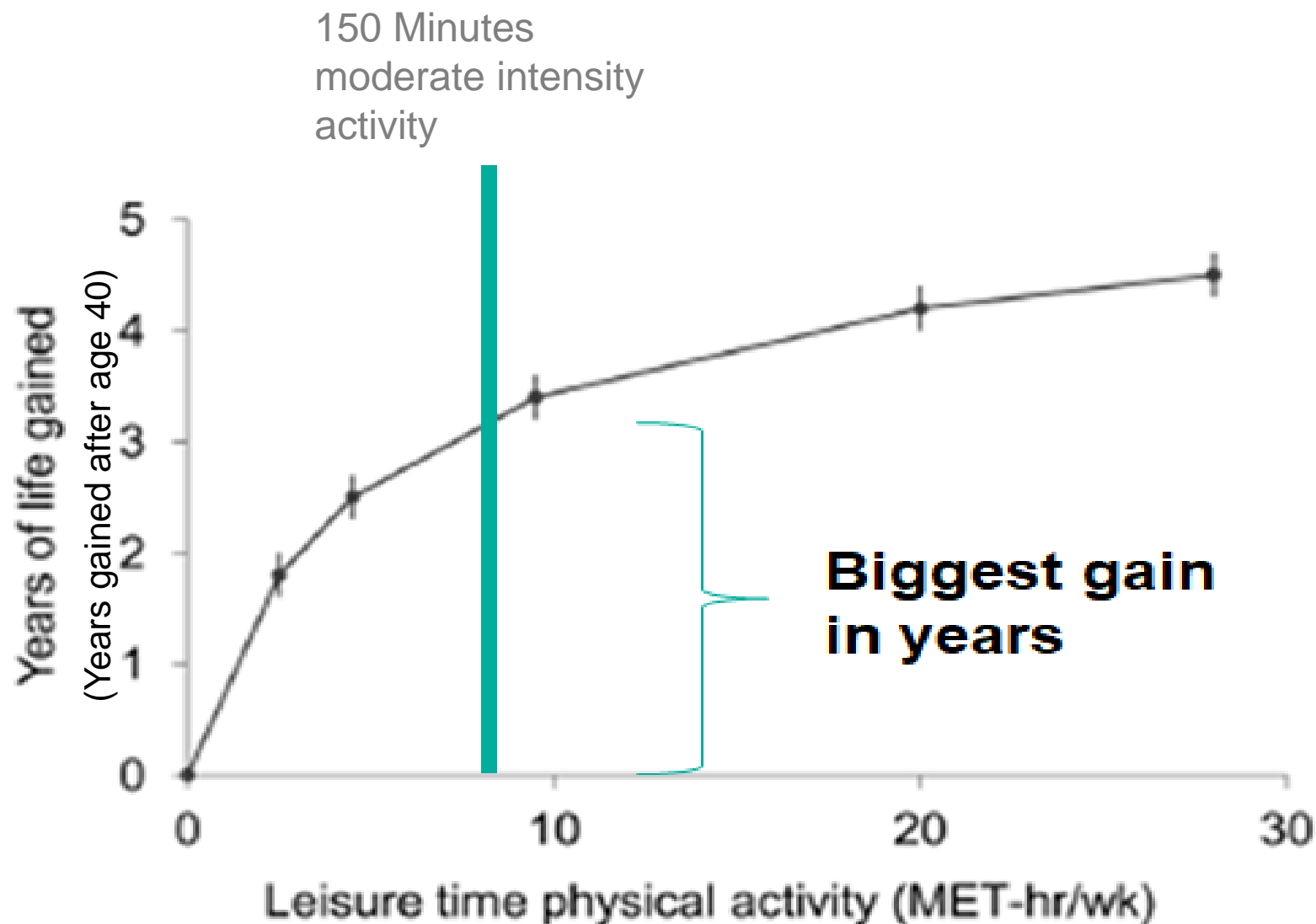
- Muscle-strengthening activity on at least two days a week
- 150 minutes of moderate intensity activity  
Or 75 minutes of vigorous intensity activity  
Or a combination of both
- Minimise sedentary time and break up periods of inactivity
- For older adults (65+) - Balance and flexibility activities at least two days a week

**Every minute counts.  
Some is good, more is better!**





# Who gains the most?



Greatest gains  
are in those who  
go from **doing  
nothing to  
doing  
something.**



# All physical activity has benefit

Systematic review and meta analysis covering 8 studies and 36,383 people

All physical activity regardless of intensity associated with substantially reduced risk of death

Magnitude of association about twice as great as previously reported from self-report

Aligns with UK CMOs' guidance that *“Any activity is better than none, and more is better still”*

*Key message:*

**SIT LESS**

—

**MOVE MORE**

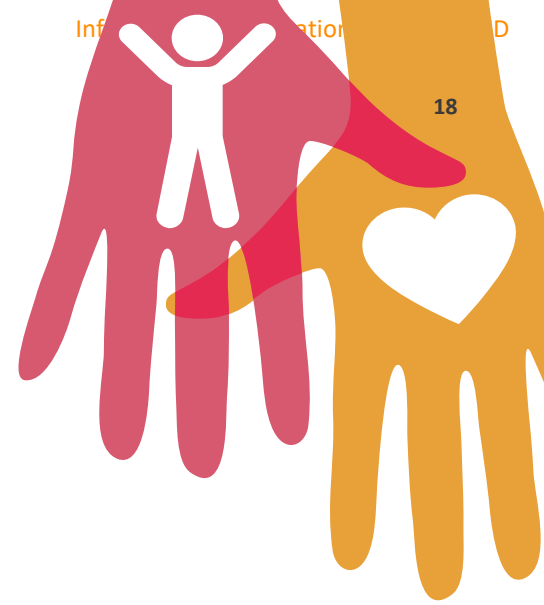
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**MOVE MORE OFTEN**



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# Benefits of Physical Activity

What are the health benefits?

Which conditions does it prevent and manage?

Which patients would benefit?

What are the physiological mechanisms at work?





# The wider well-being benefits of physical activity



# What conditions

## Endocrinology

- Diabetes
- obesity

## Cancer

- All cancers can help in treatment

## Prevent

- Bowel
- Breast
- Prostate

## Mental Health

- Depression
- Dementia

- Anxiety

- Reduce stress

## CVD

- BP
- Stroke

- MI

- Respiratory

- COPD

## MSK

- Arthritis
- Fibromyalgia
- Fractures

- Osteoporosis

- Back pain

## Gynae

- Period pain
- Menopause
- PCO

## Other

- sleep

Physical activity reduces the risk of which of the following conditions by at least 20%?

All cause mortality

Colorectal cancer

Breast cancer

Bone fractures

Depression

Hypertension

CHD and stroke

Reduction in cognitive function

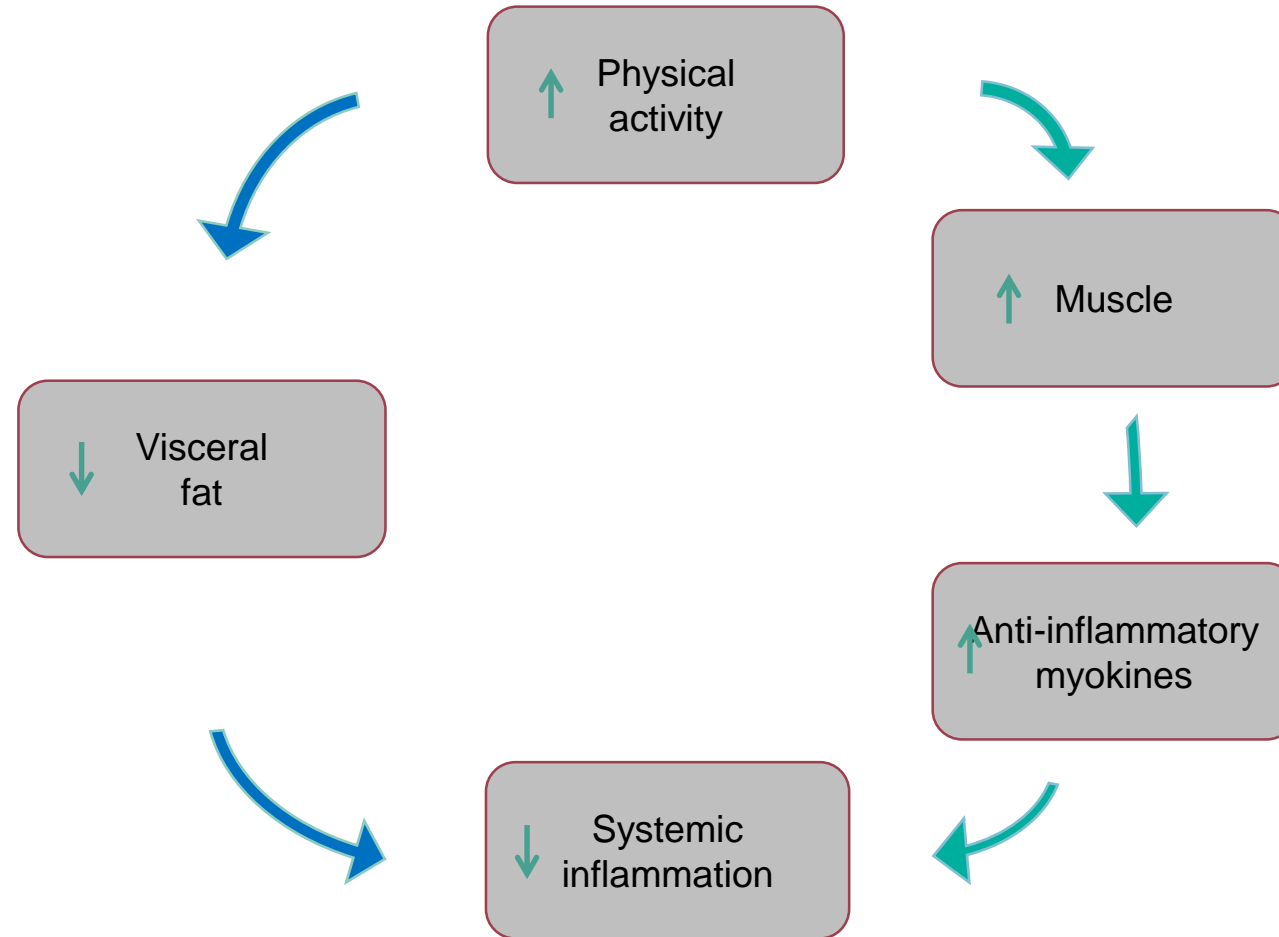


# Physical activity reduces mortality and morbidity 23

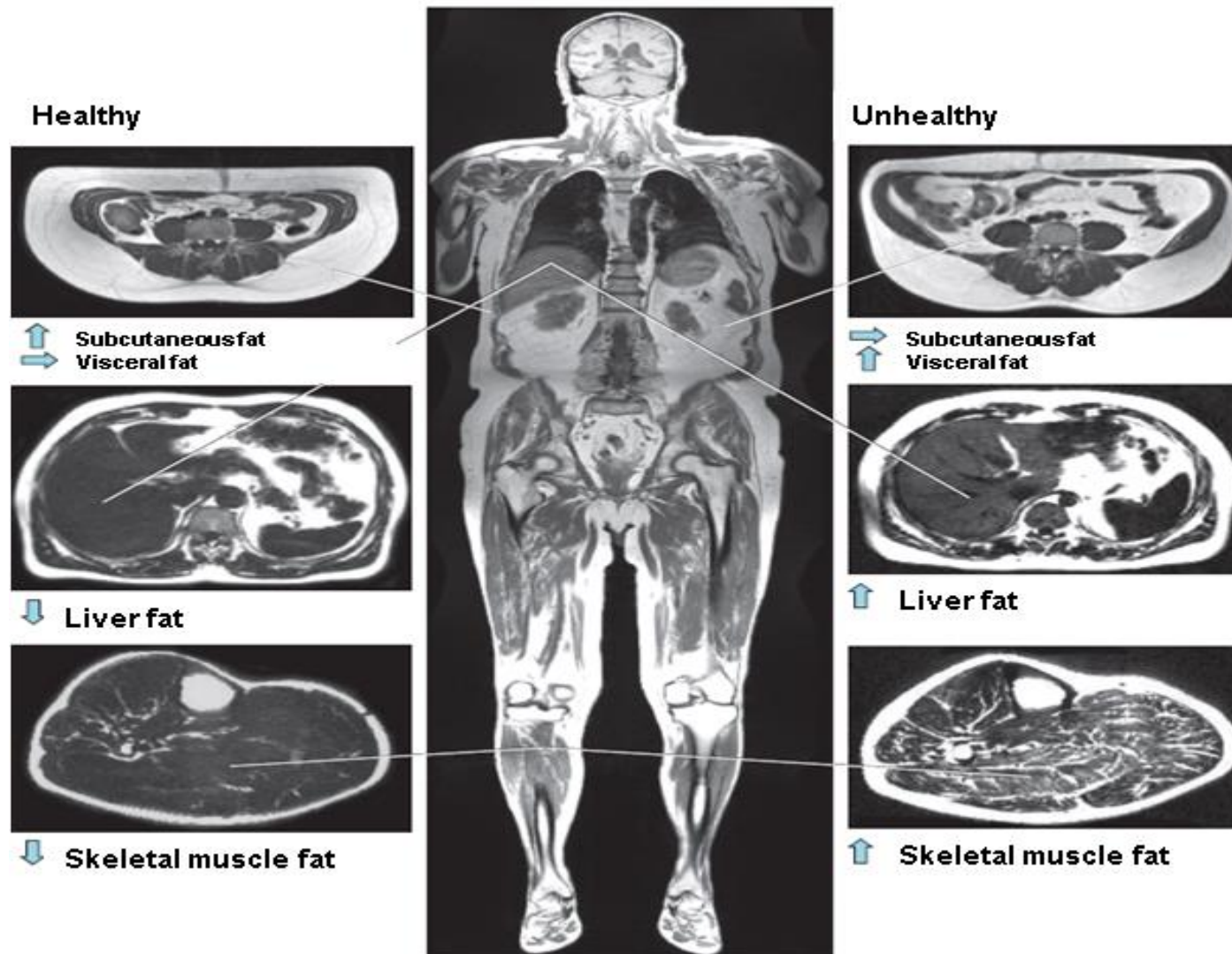
Disease	Risk Reduction (Up to)	Strength of evidence (Prevention)
All-Cause Mortality	30%	Strong
Bone fractures	66%	Strong
Breast cancer	20%	Strong
CHD and stroke	30%	Strong
Colorectal cancer	20%	Strong
Depression	50%	Strong
Hypertension	30%	Strong
Type 2 diabetes	35%	Strong
Reduction in cognitive function	40%	Moderate



# How is physical activity protective?



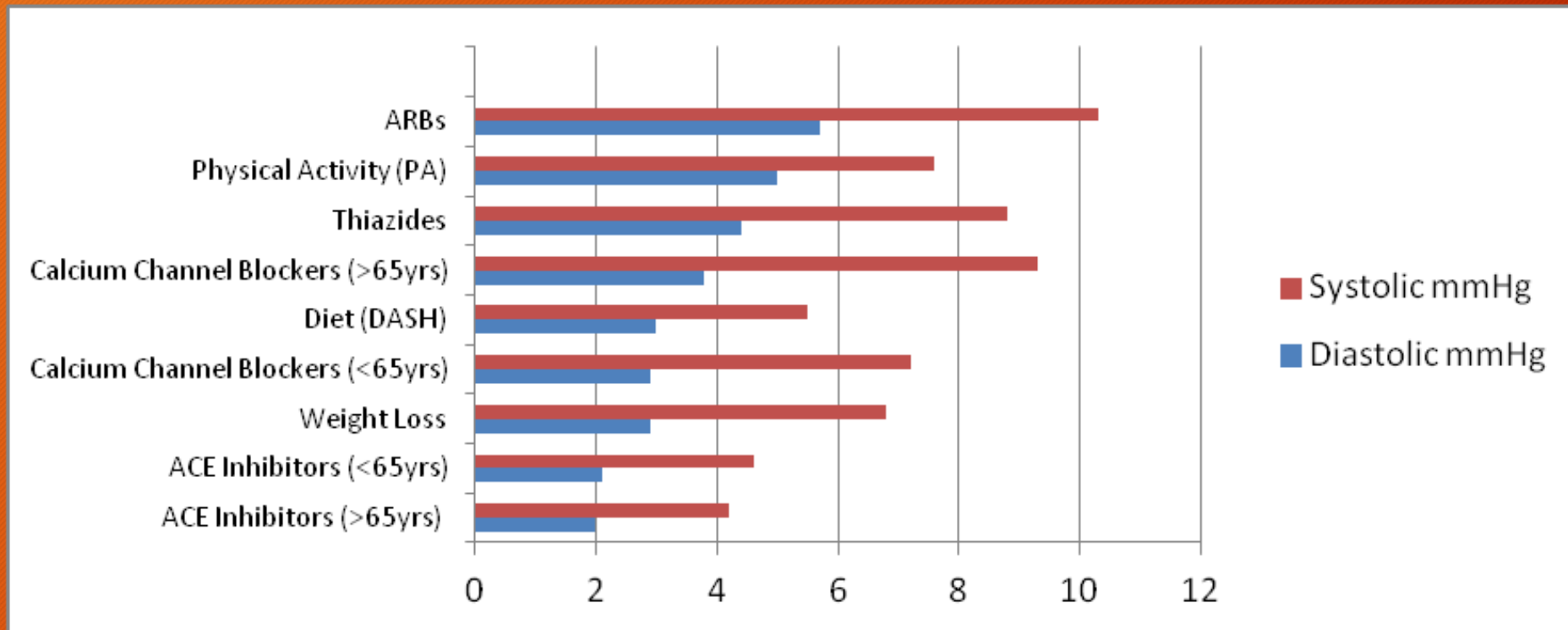
# Visceral fat for the same BMI





# Physical Activity and Blood Pressure - 6 weeks

## - does it really make much difference?

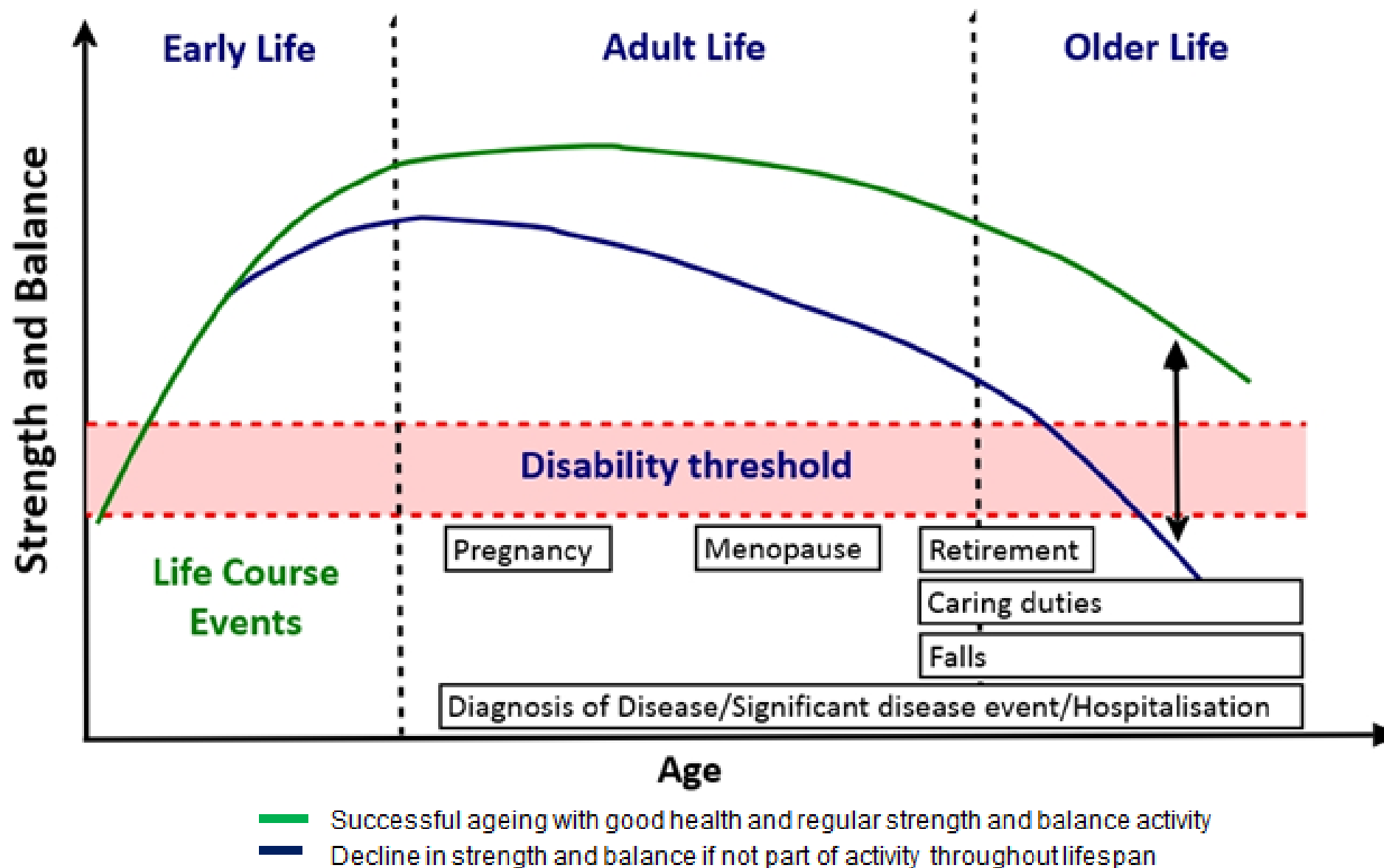


# What treatment? Which one has best outcomes?

Intervention	All-cause mortality	Cardio-vascular mortality	Myocardial infarction
ACE-I *	10%	19%	NR
Thiazide *	9%	NR	22%
$\beta$ -blocker *	6% (NS)	NR	8% (NS)
Ca <sup>2+</sup> channel blockers *	-6% (NS)	NR	29% (NS)
Regular physical activity (self-reported) #	29%	30%	NR
Regular physical activity (fitness tests) #	41%	57%	NR



# Strength & Balance

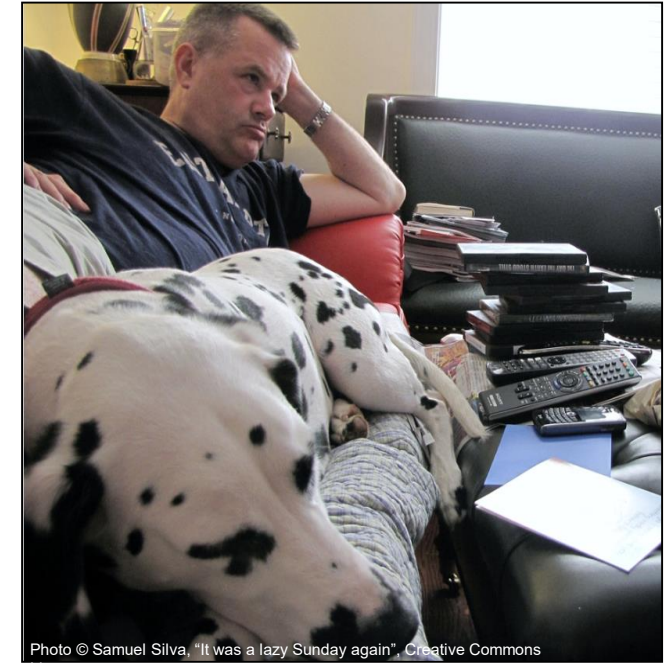


# Sedentary behaviour

Sitting or lying awake is an **independent risk factor** for health by disrupting metabolism (muscle, lipid, glucose) and circulation

Many adults spend **>7 hours per day sedentary** (increasing with age or limiting illness)

**Just two minutes** walking has a physiological effect.



UK Chief Medical Officers' recommend:  
***Minimise time sedentary and where possible break up periods of inactivity.***

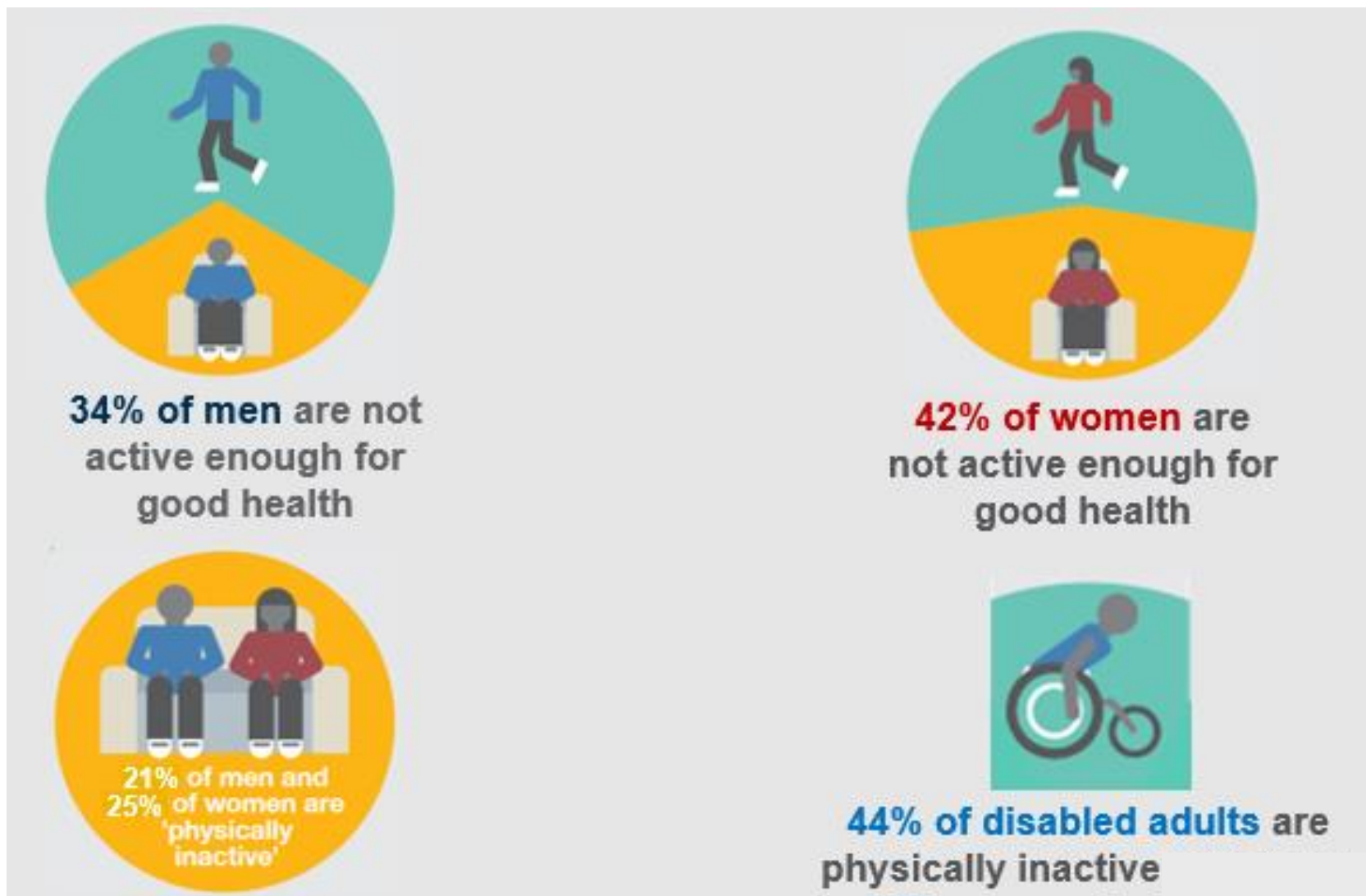


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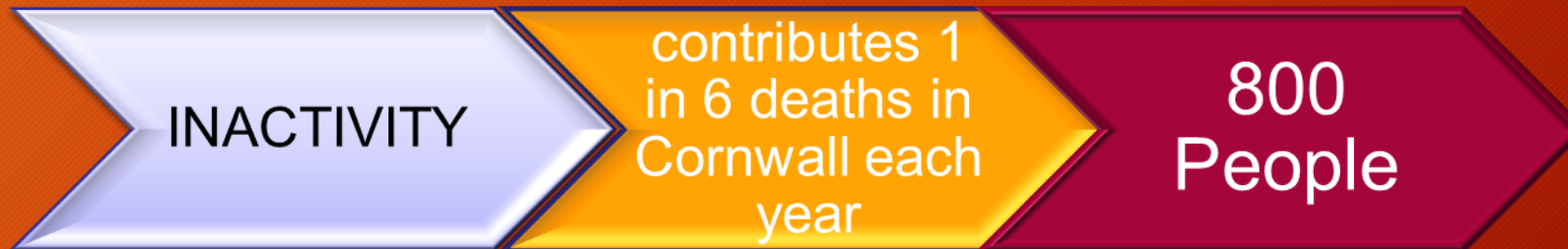


# How active are we? In England...



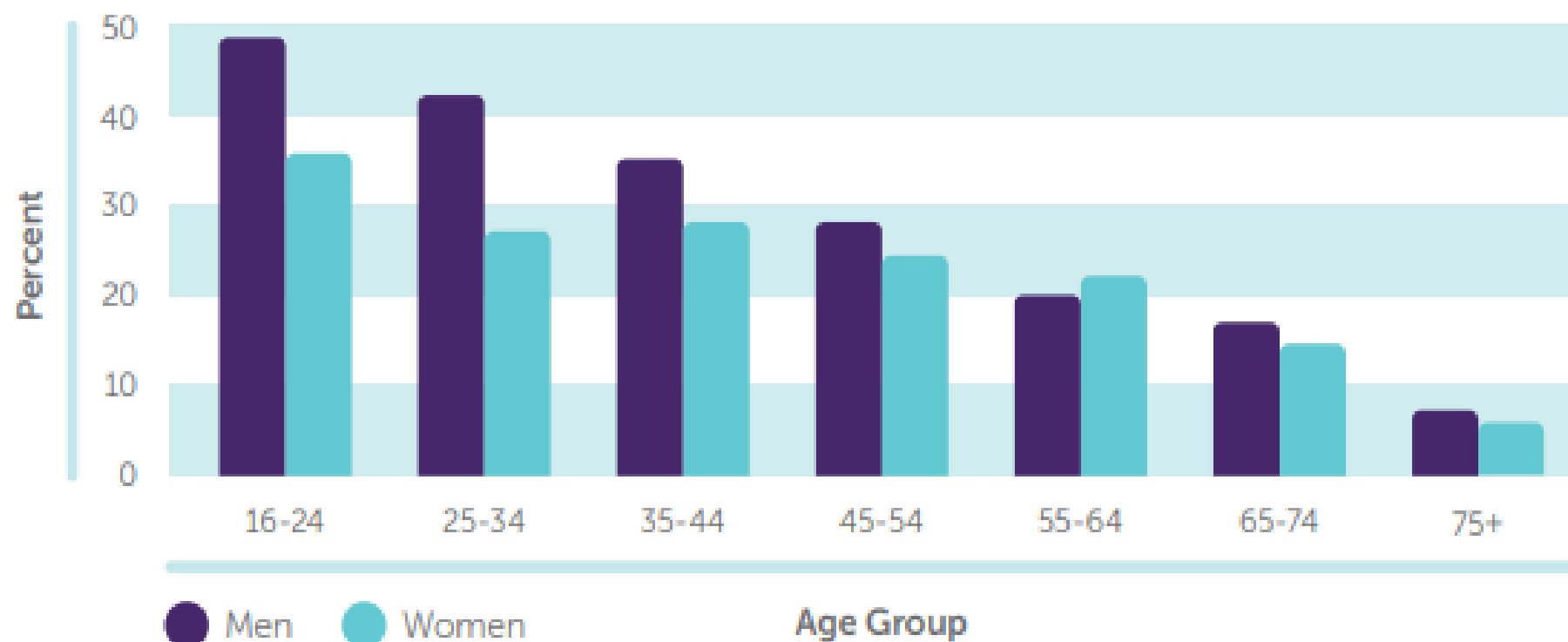
# Inactivity is as dangerous as smoking

- 1 in 3 inactive in Cornwall
- Much more likely to be inactive if have LTC
- Contributes to 800 deaths a year in Cornwall
- Always known it is important - since Hippocrates, bus driver/conductor study
- Now we really do understand what a 'wonder drug' it is



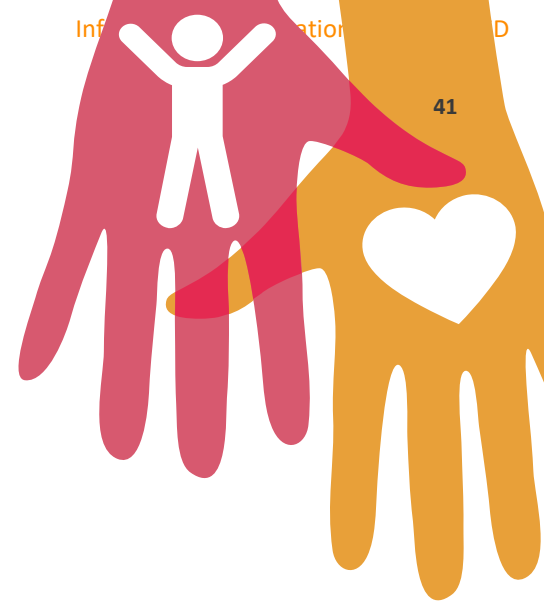
# Activity Across the Lifecourse

Proportion meeting both the aerobic and muscle-strengthening guidelines, by age and sex



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# The majority of people with a long-term health condition want to be active.

## Happiness with levels of physical activity amongst those with LTCs

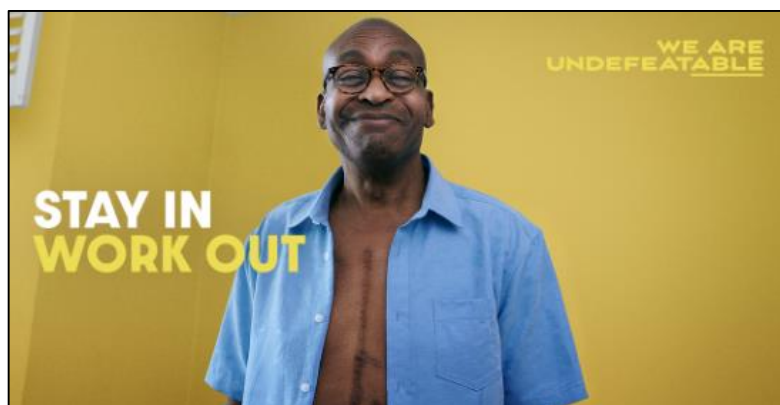
I am happy with the amount of physical activity I do, and do not want to do more

32%

I am unhappy with the amount of physical activity I do, and do want to do more

61%

68% of those with 2 LTCs are unhappy

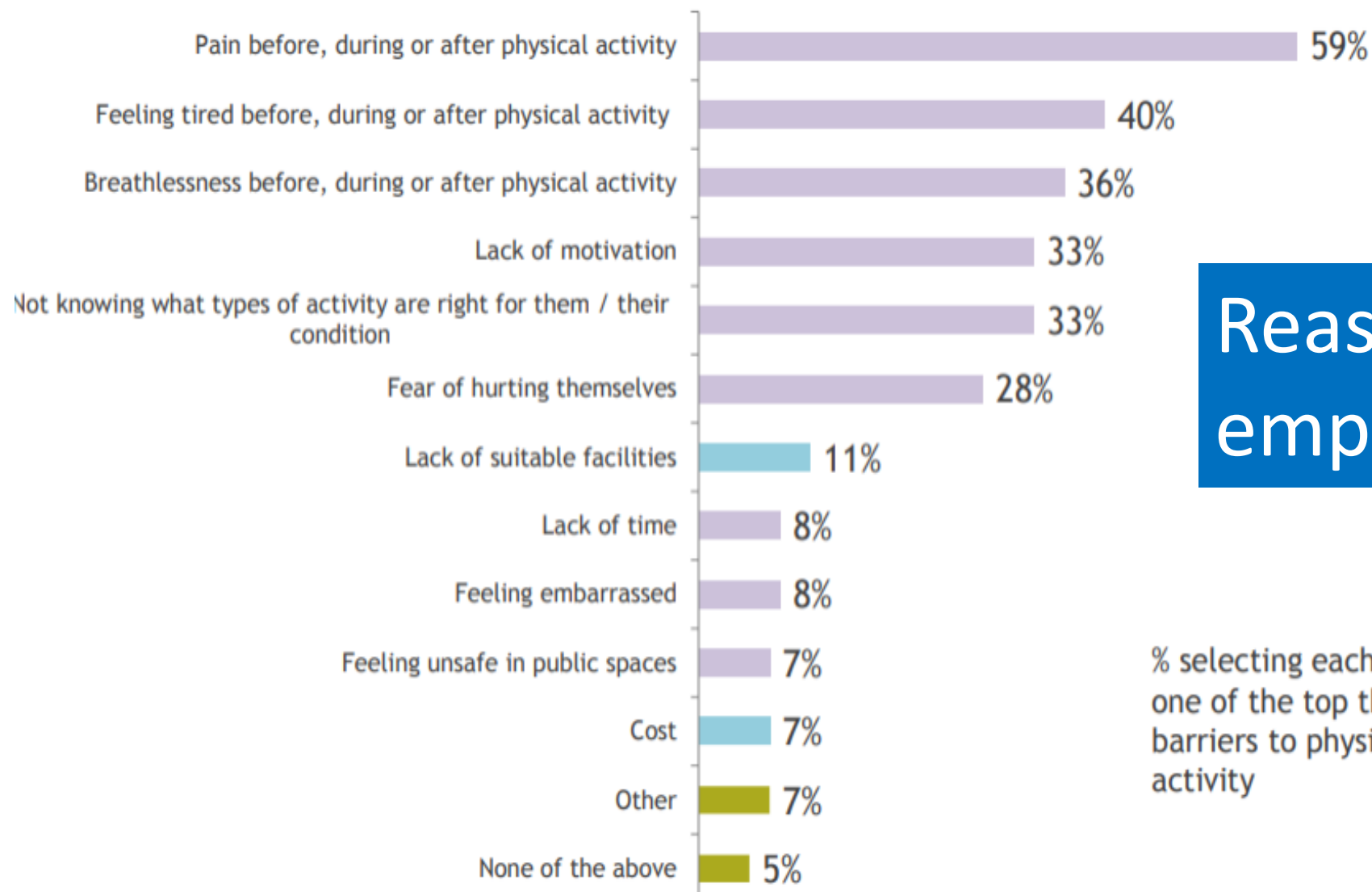


Richmond Group nof Charities (2016)





# What are the perceived barriers for people with LTCs



Reassure and empower!

% selecting each option as one of the top three barriers to physical activity



# Understanding risk



Points to consider before starting to exercise or increasing exercise intensity:

- 1 Current activity level
- 2 Signs/symptoms\* of certain diseases
- 3 Planned exercise intensity

**EXERCISE  
IS GREAT FOR  
MOST  
PEOPLE.**



\* Elevated level of risk for those symptomatic with cardiac, metabolic or renal disease

# 3 A's of brief advice

## Ask

### Identify Activity levels

'One of the things we can do to stay and feel healthy is to be active. How physically active are you?'

'In the past week, how many days have you done a total of 30 minutes or more physical activity? Does this add up to 150 minutes?'

## Assess

### Discover your patients ideas and perspective

'What is your understanding of how physical activity can benefit you?'

'Are you interested in being more physically active?'

'How confident do you feel about increasing your physical activity level?'

## Advise

### Plan and set goals

'What goals would you like to set?'

'How will you monitor your progress?'

Consider specific suggestions applicable to your patients goals and situation.



# Key Resources



## Guidance

[UK CMOs guidance and infographics](#)

[NICE guidance](#)

## National public campaigns

[We are UndebeatABLE](#) 15 UK Health Charities

[Love Activity, Hate Exercise?](#) Chartered Society of Physiotherapy

[One You](#) / [Change4Life](#) / [Active 10](#) Public Health England

[Couch to 5K](#) NHS

## Evidence-based resources

[E-learning for Health](#) Health Education England

[Moving Medicine](#)

[All Our Health](#) Health Education England

## Royal Colleges/Professional bodies

[RCGP Active Practice Charter](#)

[RCGP toolkit](#)



# Local Opportunities



parkrun organise free, weekly, 5km timed runs around the world. They are open to everyone, free, and are safe and easy to take part in.

Walking for Health is England's largest network of health walks with over 360 active walking schemes



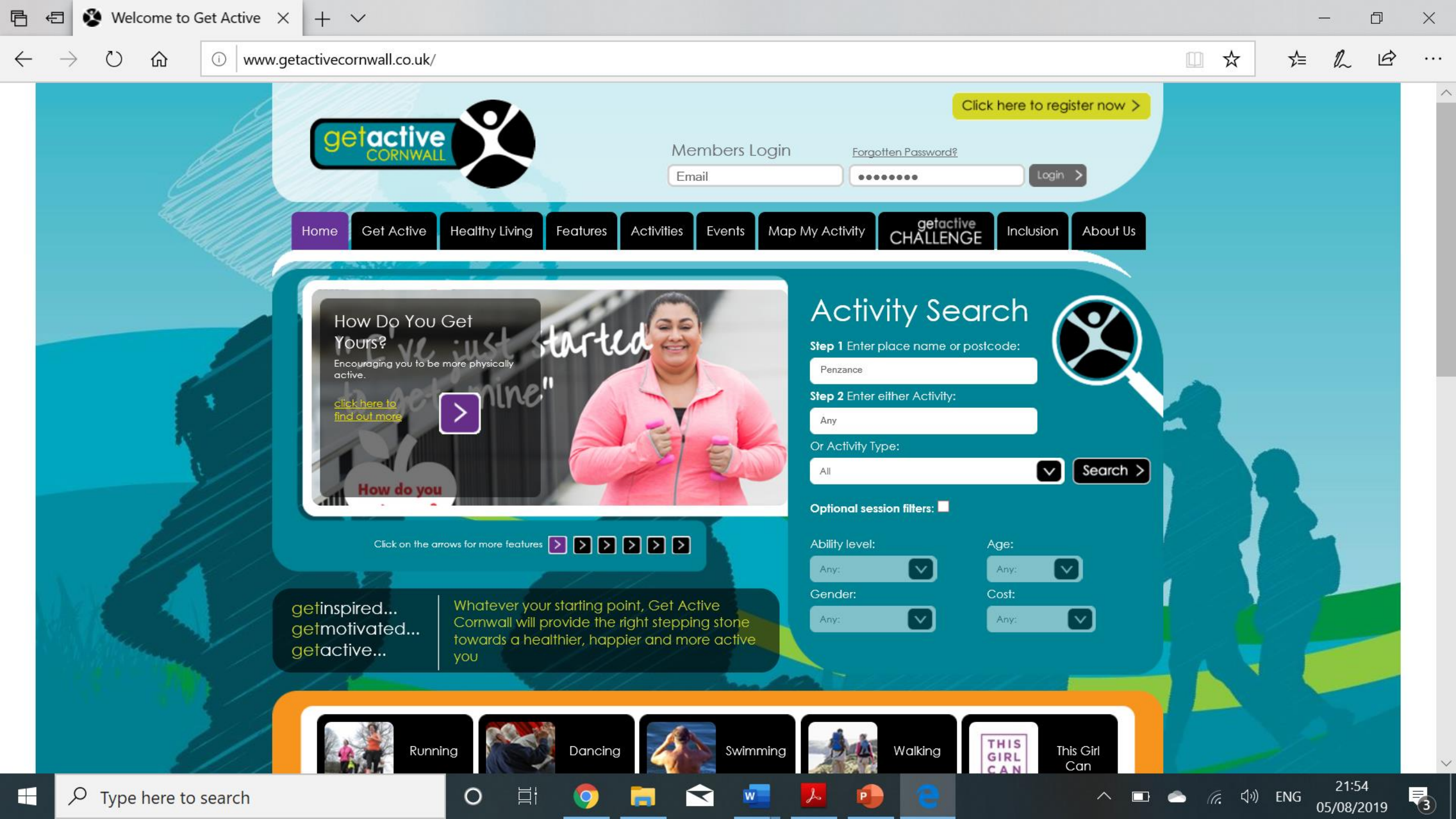
43 Active Partnerships across England, using the power of sport and physical activity to transform lives.



# Available in Cornwall

- Exercise through programmes like healthy weight, NDPP, cancer rehab
- GLL - exercise on prescription - £20 pm - individual training and full access to centres
- Swim for health ( free)
- Park run Penzance, Helston and Heartlands. Trellisick
- Multiple other - dance, swimming open water, U3A, tai chi, see [www.getactivecornwall.co.uk](http://www.getactivecornwall.co.uk)





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getinspired...  
getmotivated...  
getactive...

Whatever your starting point, Get Active  
Cornwall will provide the right stepping stone  
towards a healthier, happier and more active  
you

## Activity Search



Step 1 Enter place name or postcode:

Penzance

Step 2 Enter either Activity:

Any

Or Activity Type:

All



Search >

Optional session filters: ☐

Ability level:

Any:



Age:

Any:



Gender:

Any:



Cost:

Any:



Running



Dancing



Swimming



Walking



This Girl  
Can



## QUESTIONS?

- What opportunities do YOU have to promote PA in your own clinical setting?



## Training certificate

- To access your training certificate go to <https://tinyurl.com/y2hhtowc>



## Share good practice

- Keep in touch and let us know how this training has helped you and your patients







## Public Health England

### About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. PHE is an operationally autonomous executive agency of the Department of Health.

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### About Sport England

Sport England is a public body and invests up to £300 million National Lottery and government money each year in projects and programmes that help people get active and play sport.

It wants everyone in England, regardless of age, background, or level of ability, to feel able to engage in sport and physical activity. That's why a lot of its work is specifically focused on helping people who do no, or very little, physical activity and groups who are typically less active - like women, disabled people and people on lower incomes.

#### HEAD OFFICE

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## With thanks to the National Centre for Sport and Exercise Medicine

