



Public Health
England



Physical activity for the management and prevention of disease

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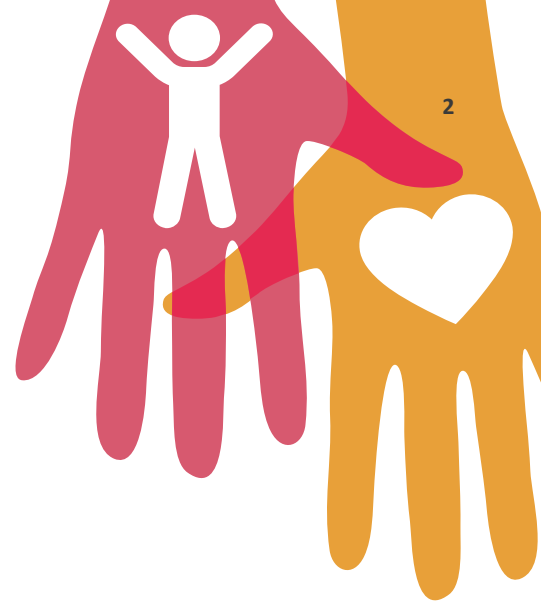
Physical Activity Clinical Champions 2019-20



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 in your clinical care.



Add your photo here

Introductions

A bit about you as champion.....



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



How does physical inactivity compare with other non-communicable disease risk factors for mortality?

Overweight and Obesity

Drug Use

High Blood Glucose

High Blood Pressure

Tobacco Use

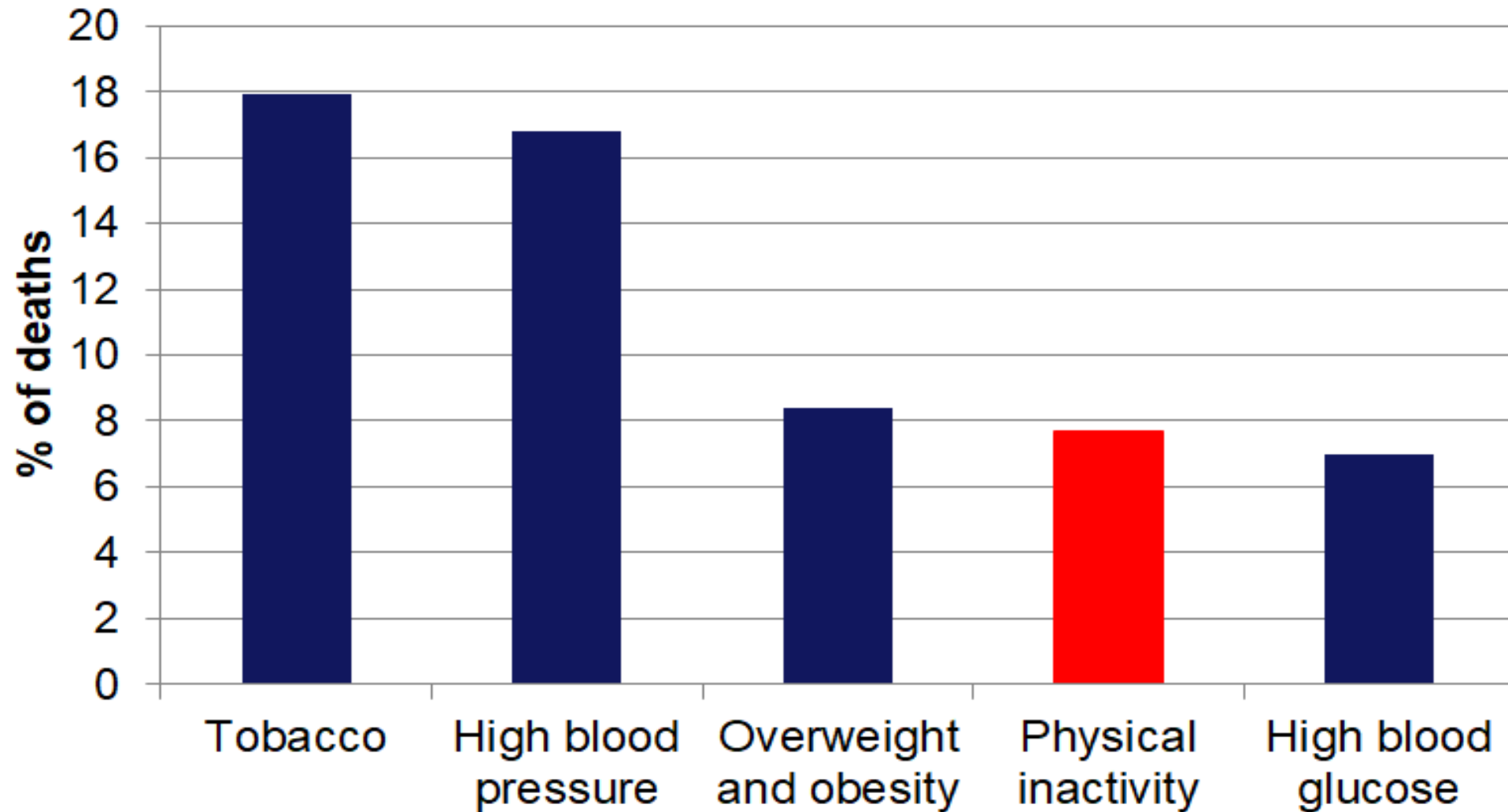
Diet Low in Vegetables

Alcohol use

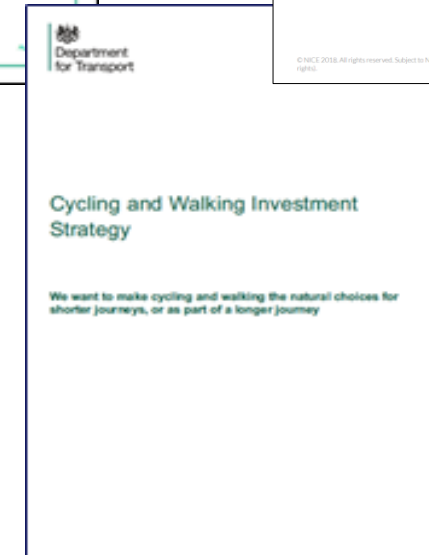
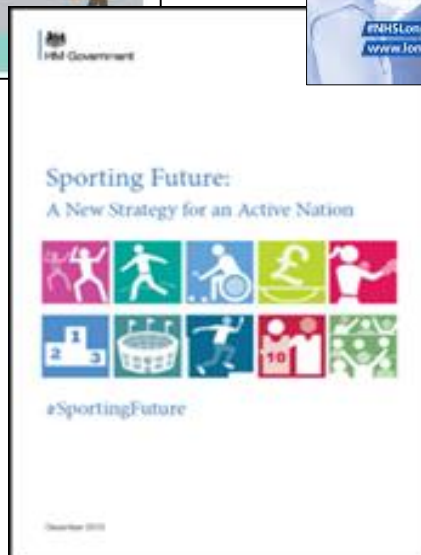
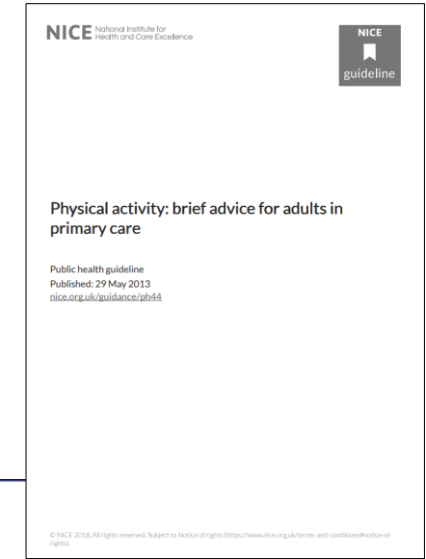
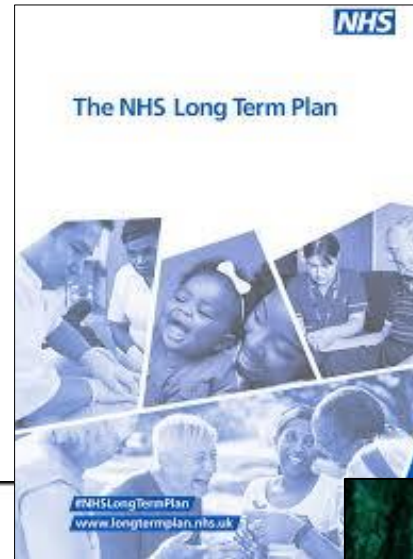
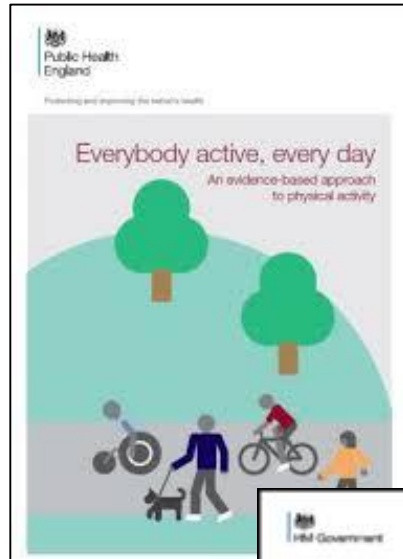
High Total Cholesterol



Top five non-communicable disease risk factors for mortality, high income countries



Physical activity across policies and guidance



Knowledge and skills of healthcare professionals

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Research

Robin Chatterjee, Tim Chapman, Mike GT Brannan and Justin Varney

GPs' knowledge, use, and confidence in discussing physical activity and health guidelines

a questionnaire-based survey of general practice in England

GPs in England 'unconfident' discussing physical activity with patients - report

unconfident discussing activity
hard of national guidelines

the guardian



...y don't have time or even energy to
patients.

Open Access

BMJ Open
Sport &
Exercise
Medicine

Physiotherapy and physical activity: a cross-sectional survey of physical activity promotion of physical activity guidelines physical activity habits physiotherapists

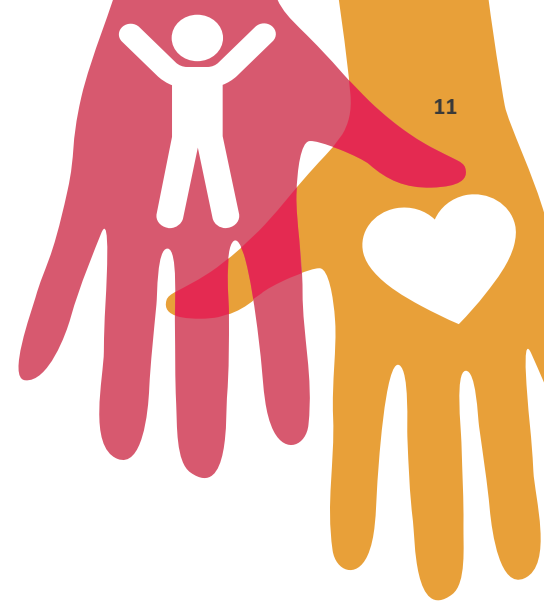
Anna Lowe, Chris Littlewood,¹ Sionnadh McLean,² Karen Kilner²

- Survey of 1,000 GPs found **80% not familiar with national guidelines**
- Survey of 552 physiotherapists showed **only one in six (16%) knew all elements of guidelines**



Plan for the Session

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2. **Key concepts in physical activity**
3. Benefits of physical activity
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What is Physical Activity?

Physical activity

Active
living

Active
travel

Active
recreation

Active sport

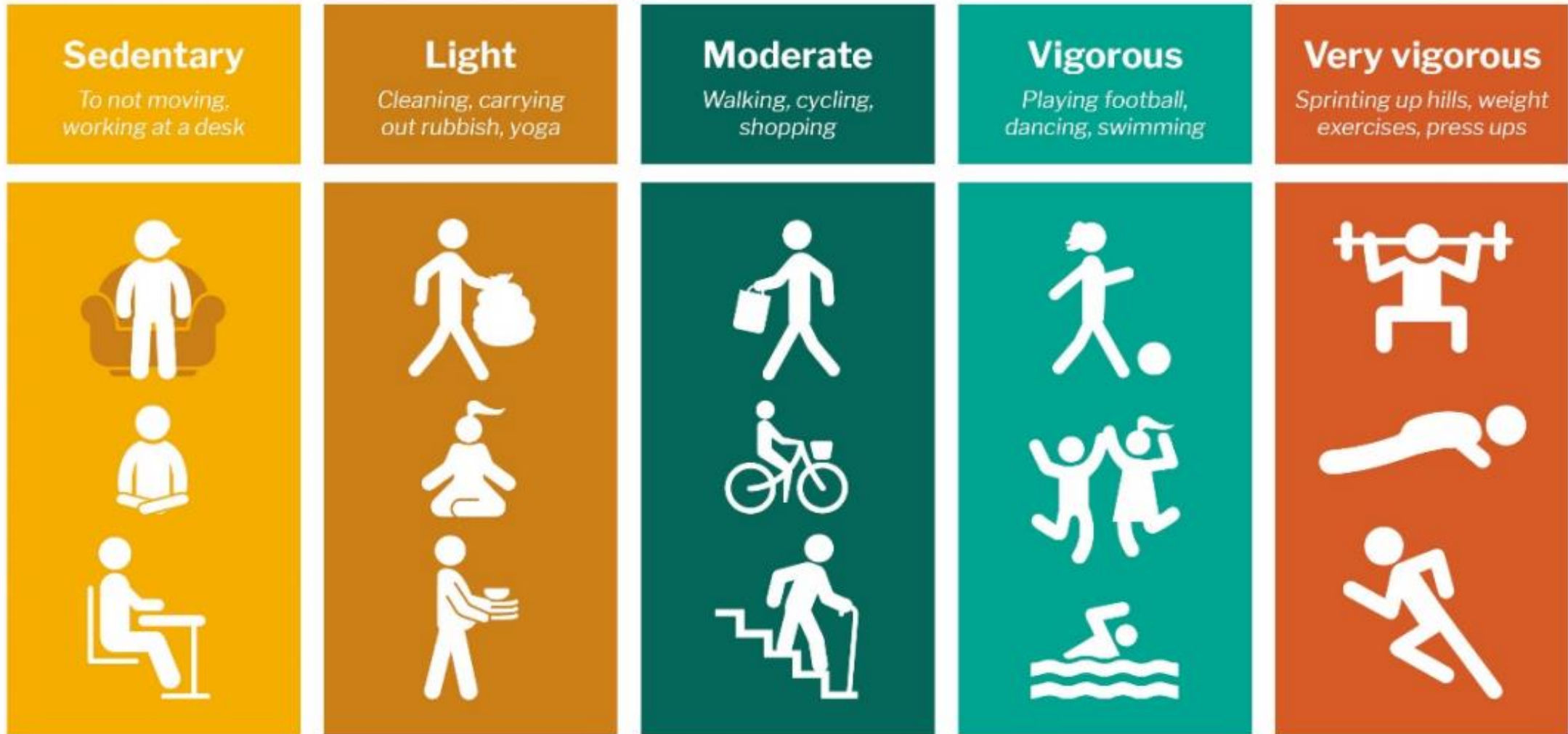
Informal
sport

Organised
sport



Intensity of exercise

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



UK Chief Medical Officers Guidelines

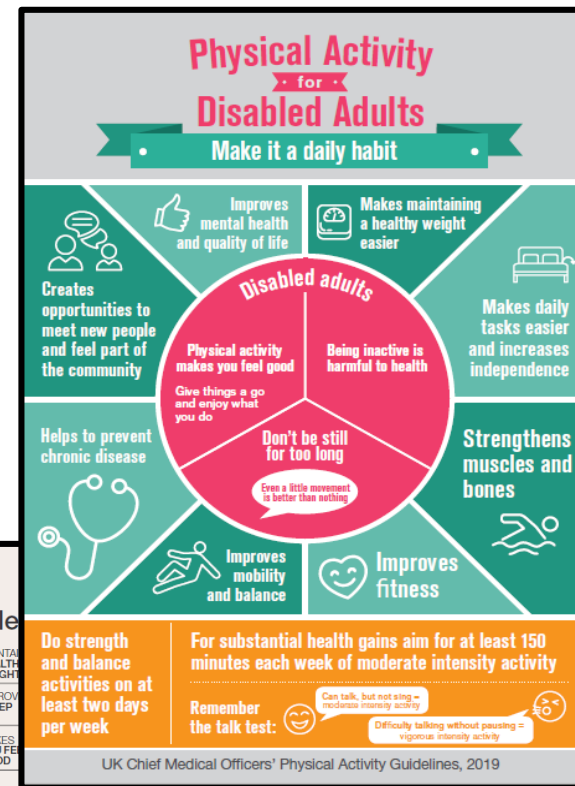
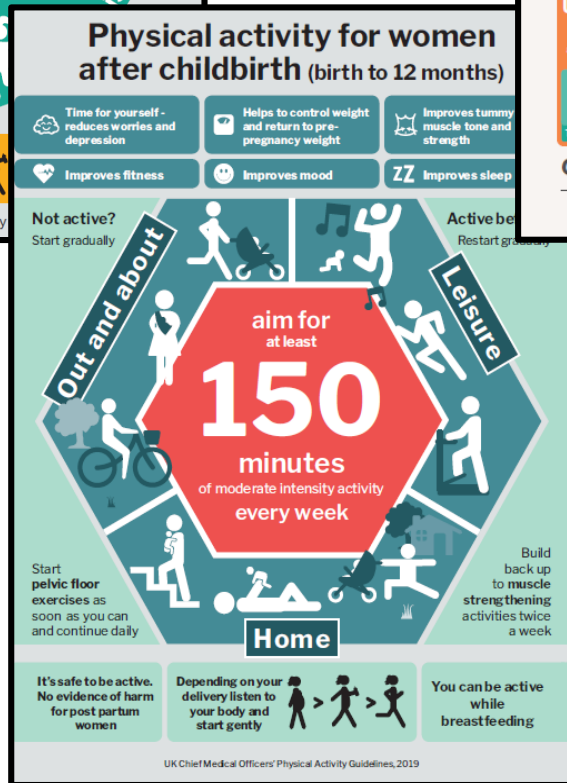
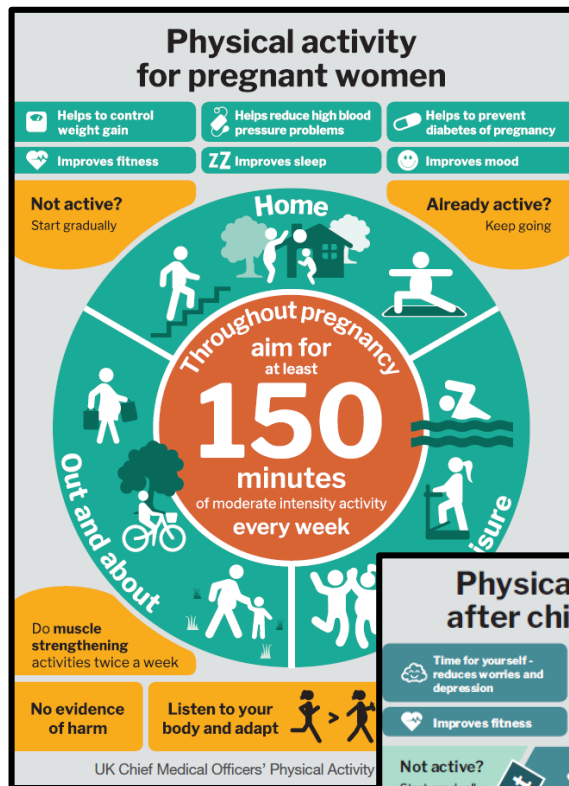
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- Muscle-strengthening activity on at least two days a week
- 150 minutes of moderate intensity activity
Or 75 minutes of vigorous intensity activity
Or a combination of both
- Minimise sedentary time and break up periods of inactivity
- For older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

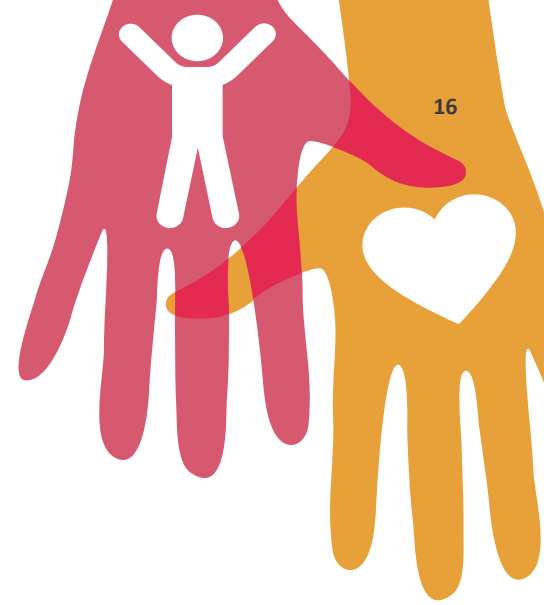
**Every minute counts.
Some is good, more is better!**





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3. **Benefits of physical activity**
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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?



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

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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

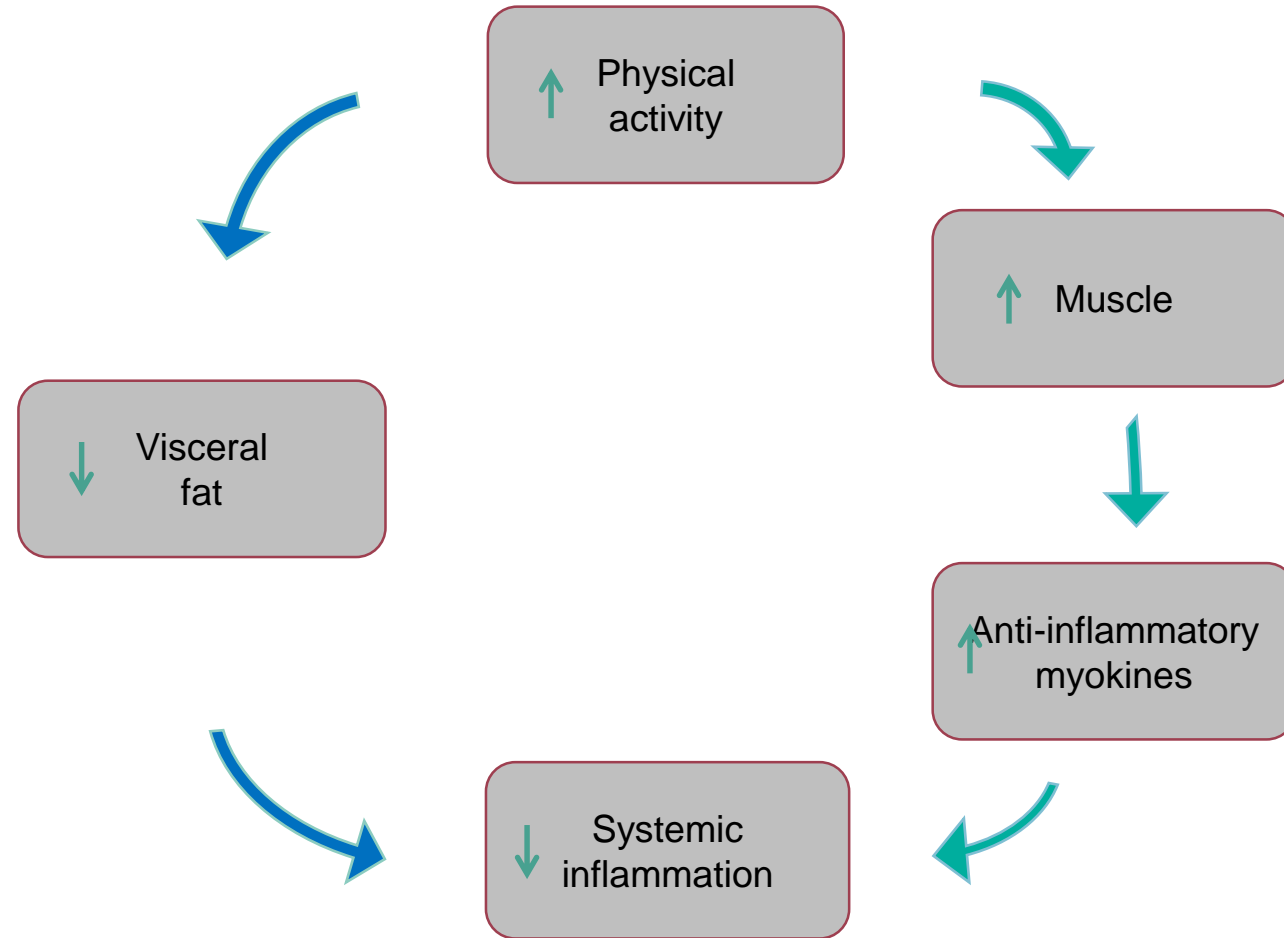


The wider well-being benefits of physical activity

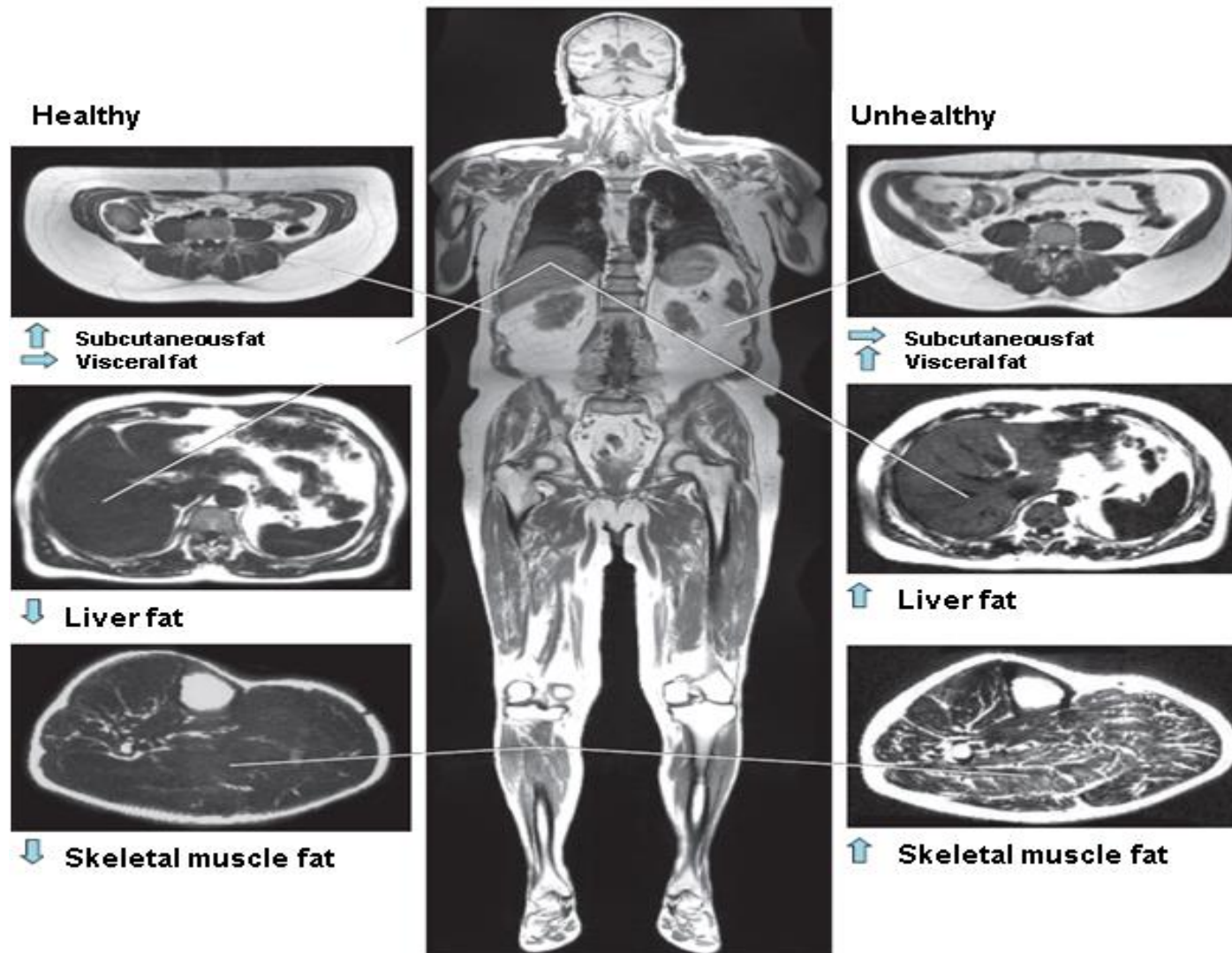


How is physical activity protective?

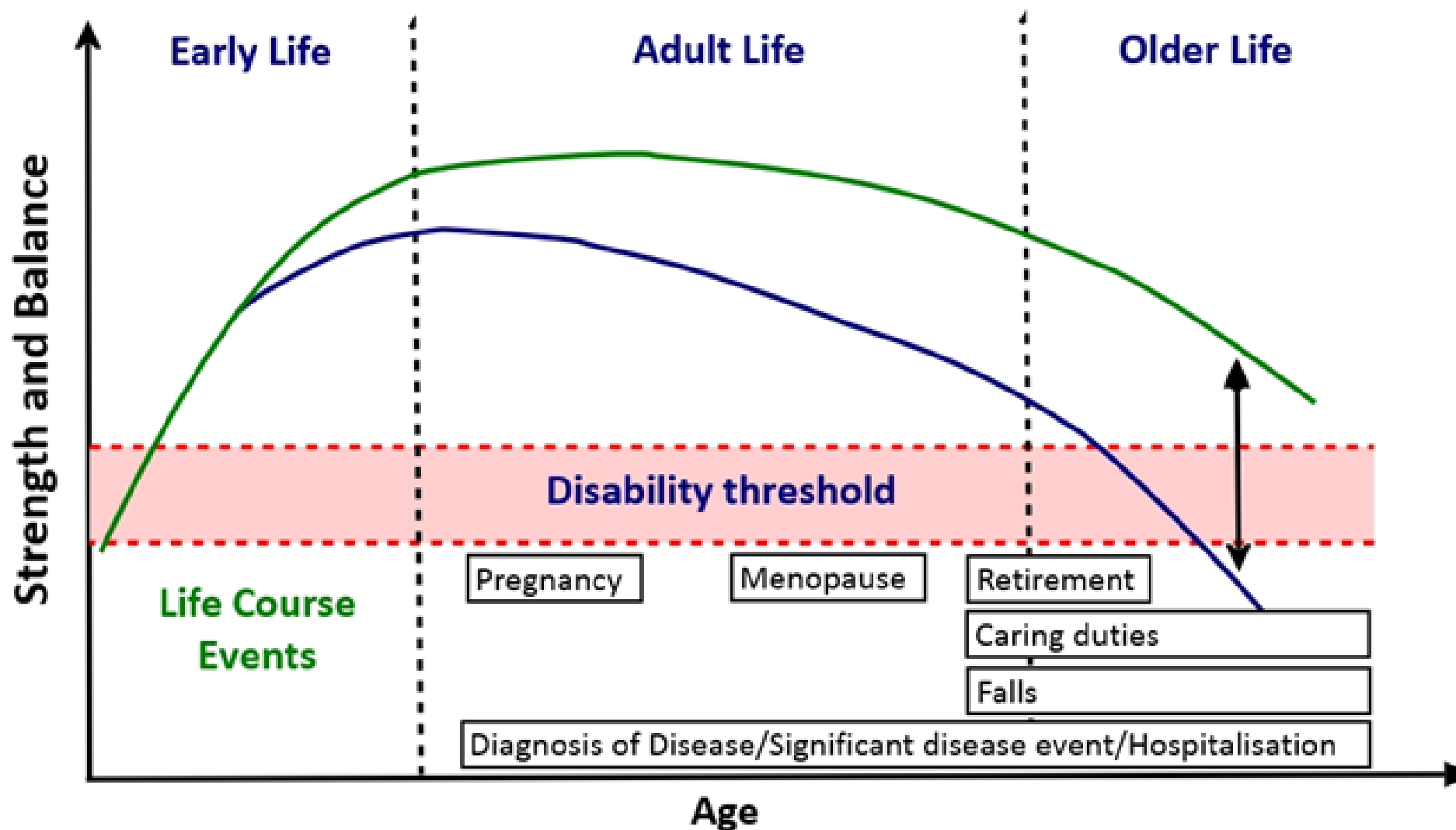
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Visceral fat for the same BMI



Strength & Balance



- Successful ageing with good health and regular strength and balance activity
- Decline in strength and balance if not part of activity throughout lifespan



Type of sport, physical activity or exercise	 Improvement in muscle function	 Improvement in bone health	 Improvement in balance
 Running	★	★★	★
 Resistance Training	★★★	★★★	★★
 Aerobics, circuit training	★★★	★★★	★★
 Ball Games	★★	★★★	★★★
 Racquet Sports	★★	★★★	★★★
 Yoga, Tai Chi	★	★	★
 Dance	★	★★	★
 Walking	★	★	☆
 Nordic Walking	★★	①	★★
 Cycling	★	★	★

★★★ Strong effect ★★ Medium effect ★ Low effect ☆ No effect ① Not known

What works to improve strength & balance?



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

—

MOVE MORE OFTEN

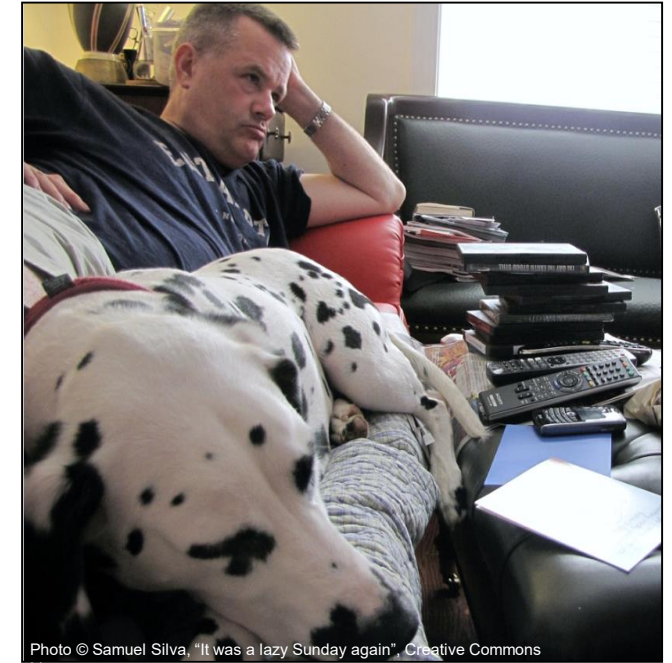


Sedentary behaviour

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.



In-patient settings

95% of hospital time spent in bed and associated with:

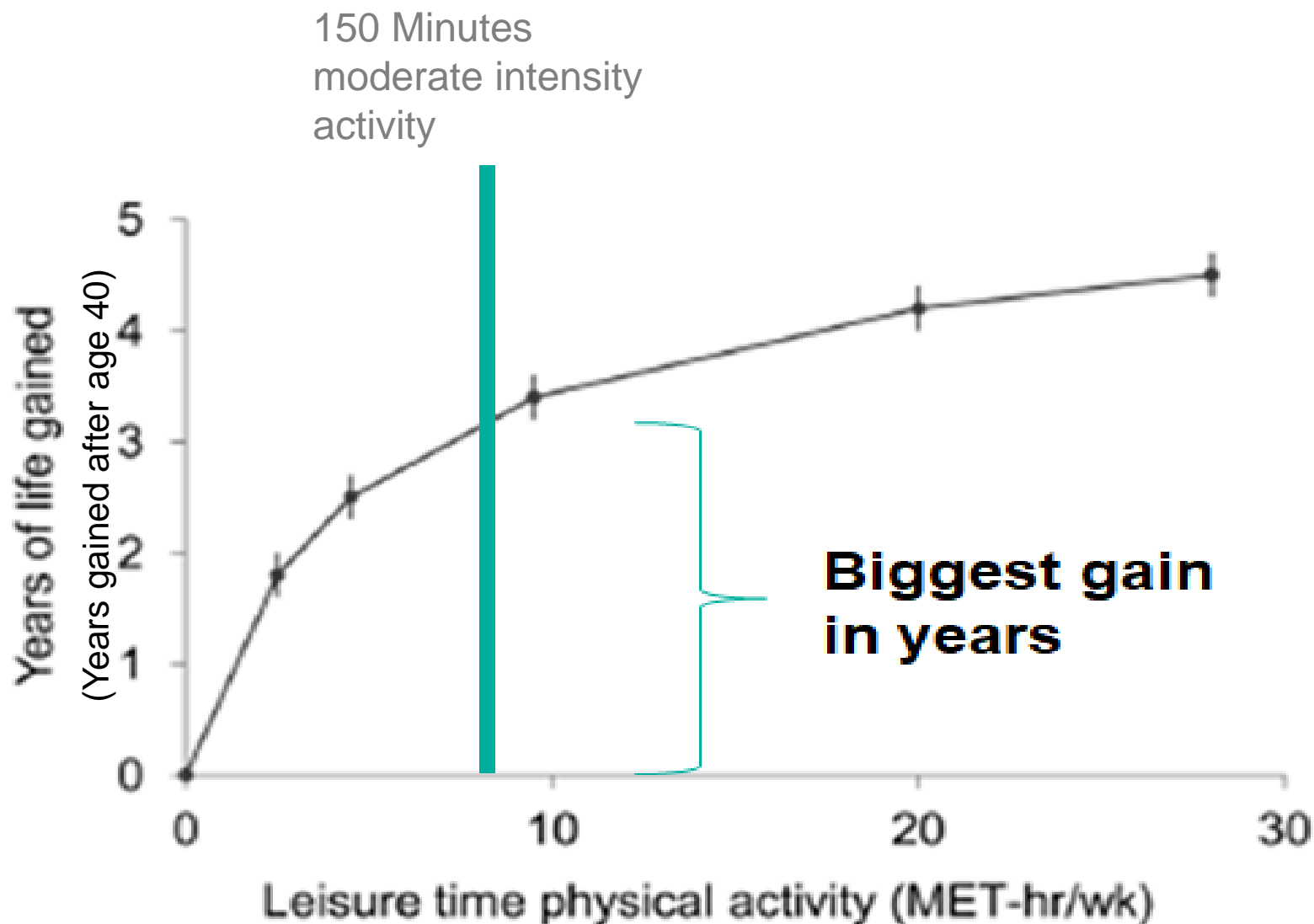
- De-conditioning / Risk of daily living disability
- Declines in muscle strength and cognition
- Higher risk of hospital re-admission

In-patient physical activity associated with:

- Decreased length of stay
- Improved fitness



Who gains the most?



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

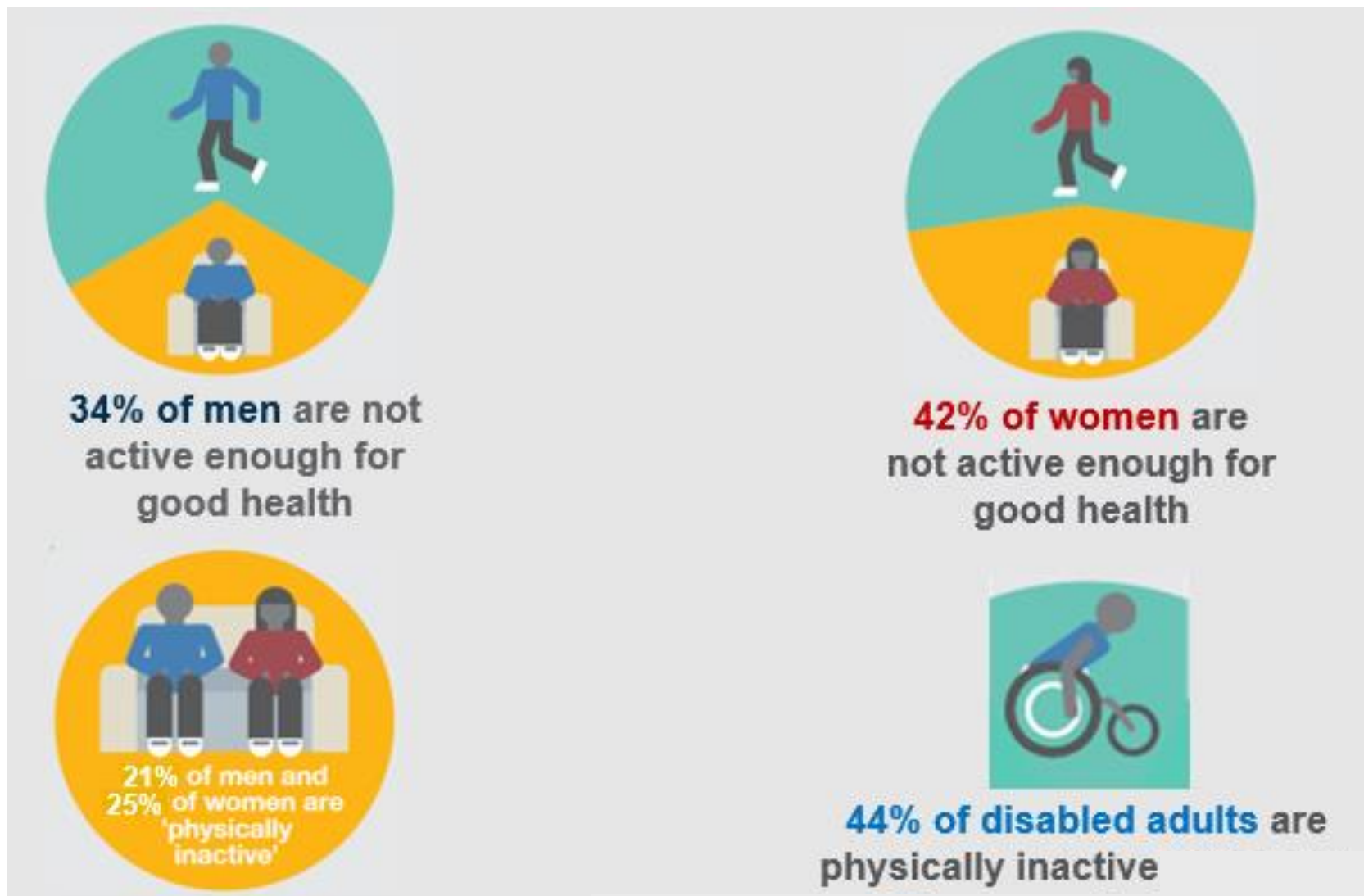


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How active are we? In England...



How does the UK compare with the following countries for inactivity?

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USA

France

Netherlands

Germany

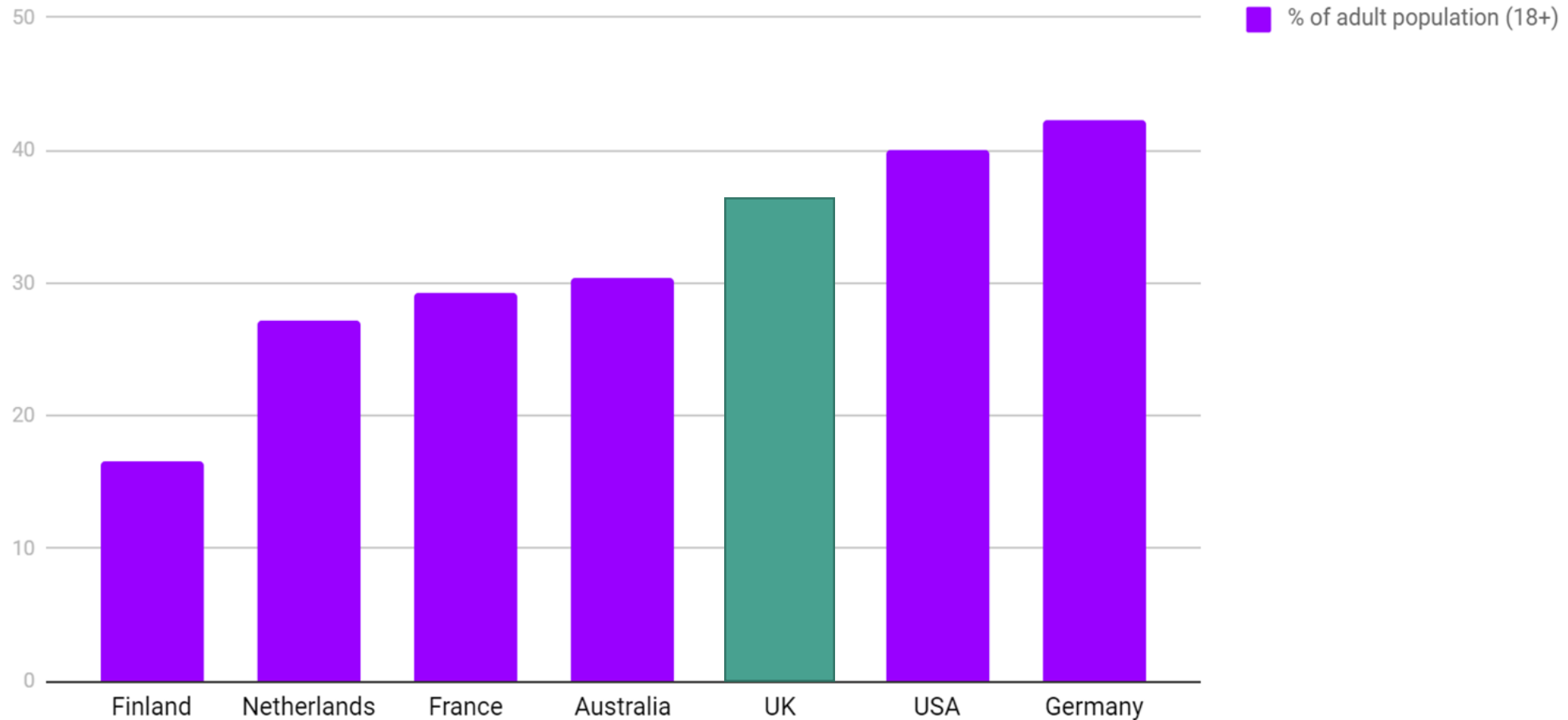
Australia

Finland



How inactive are we? Globally....

Prevalence of Insufficient Physical Activity (age-standardized estimate)



Which areas of
England are the most
physically **inactive**?



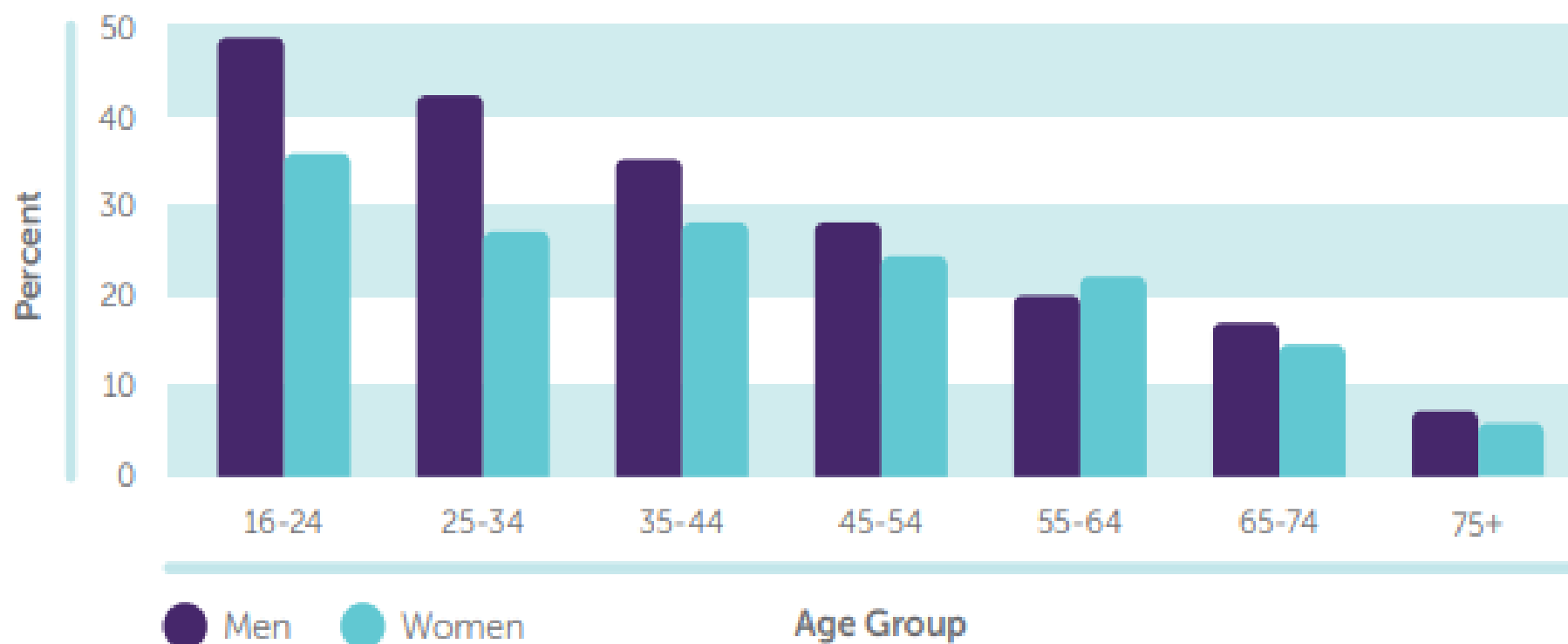
Regional Data

Region	Inactive (<30 mins per week)
North East	26.6%
West Midlands	25.5%
Yorkshire and the Humber	24.1%
North West	23.4%
East Midlands	22.7%
East of England	22.2%
London	22.0%
South East	19.0%
South West	18.7%



Activity Across the Lifecourse

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

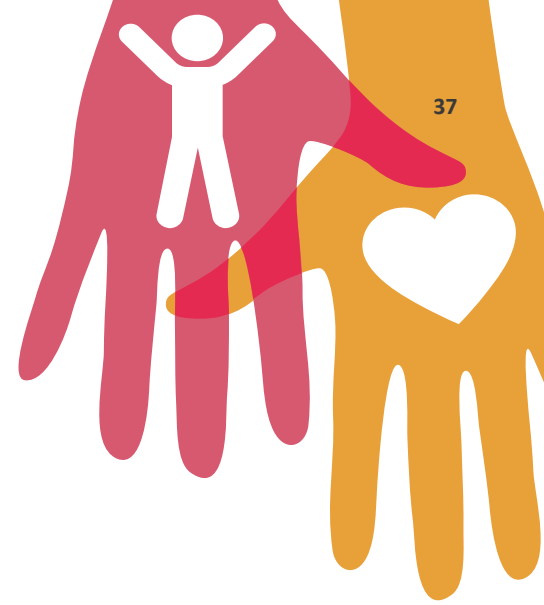


Why are we so inactive?



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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

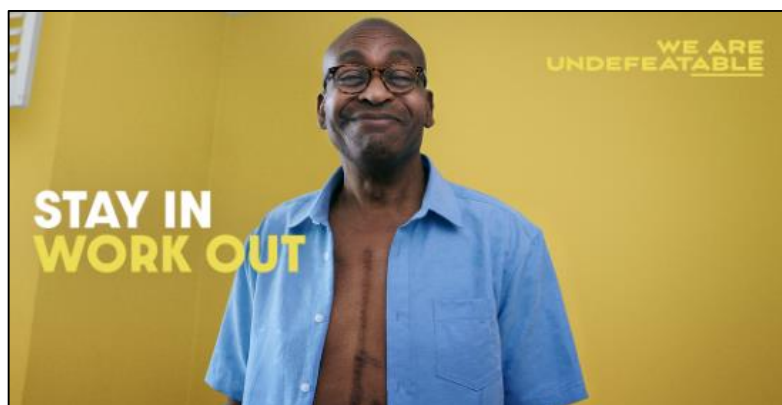
I am happy with the amount of physical activity I do, and do not want to do more

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

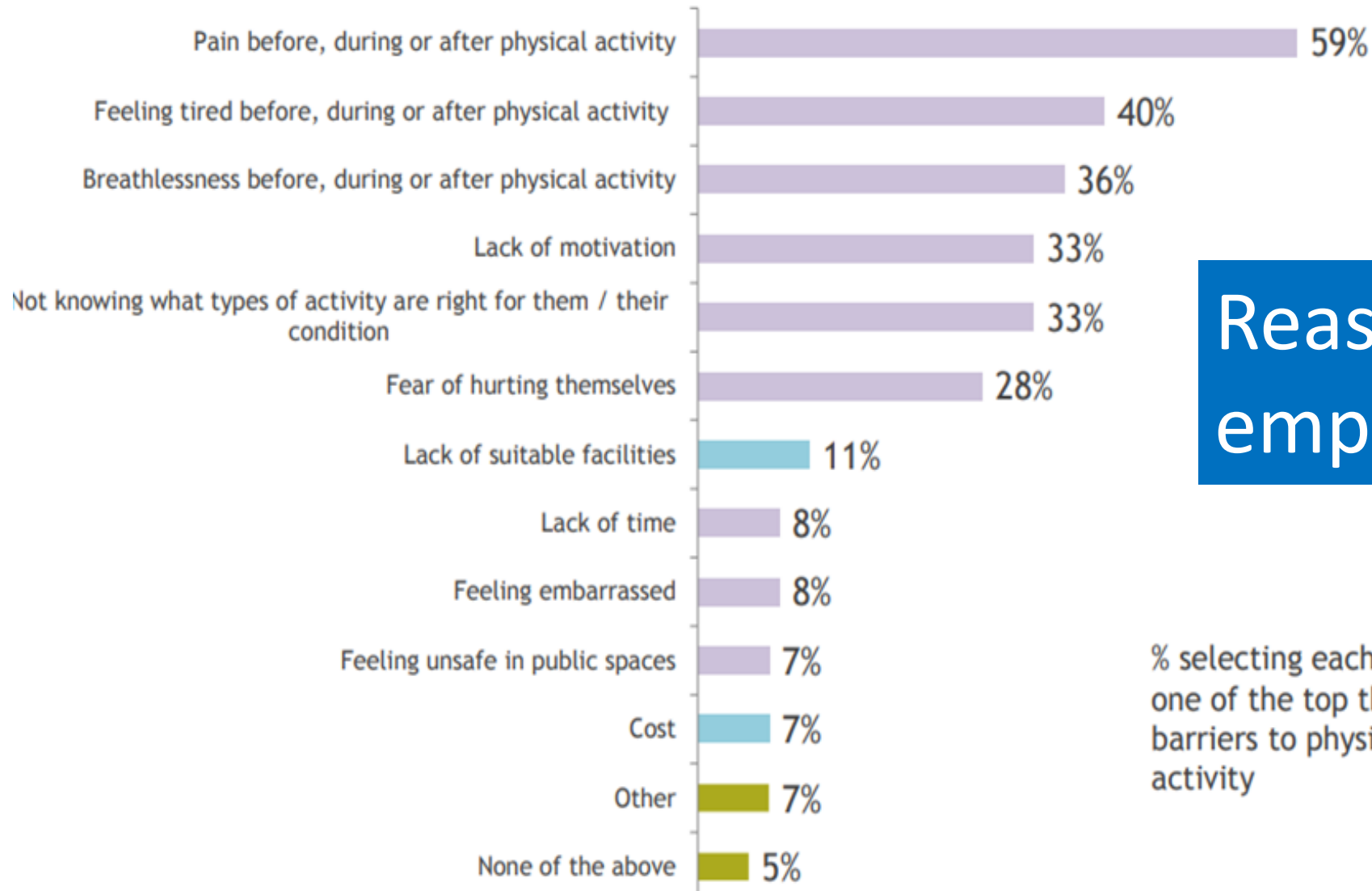


Richmond Group nof Charities (2016)



What are the perceived barriers for people with LTCs

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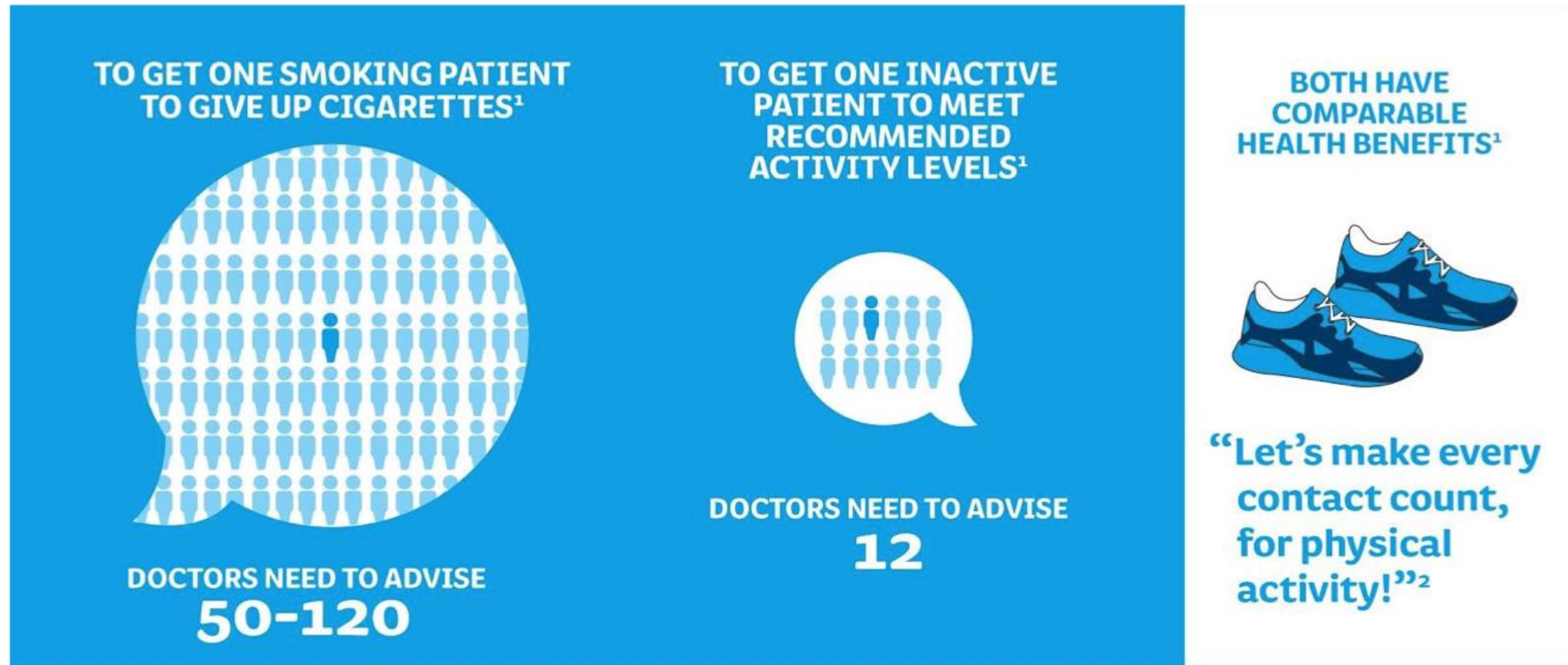


Reassure and empower!

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



The power of healthcare professional advice



1. Thornton JS et al. Br J Sports Med 2016; doi:10.1136/bjsports-2016-096291.

2. Gates AB. Br J Sports Med 2016; 50(6): 322-3.

Motivational Interviewing principles



Resist the urge to dictate the conversation

Understand the individual's reasons for change

Listen - the solutions lie within the individual

Empower the individual that they have ability to change



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.



Case study exercise

Jeff 52, plumber, persistent low back pain, low in mood for some time and doesn't sleep well. Jeff is overweight and has been told he has hypertension. Used to play football with his lads but hasn't done much since they left home, fearful of making back pain worse. Hates taking painkillers but is worried he won't manage without them.

In pairs (one person Jeff, one person healthcare professional). Have a conversation, listen for 'change talk', avoid telling Jeff what to do, show that you are listening by paraphrasing and checking your understanding.



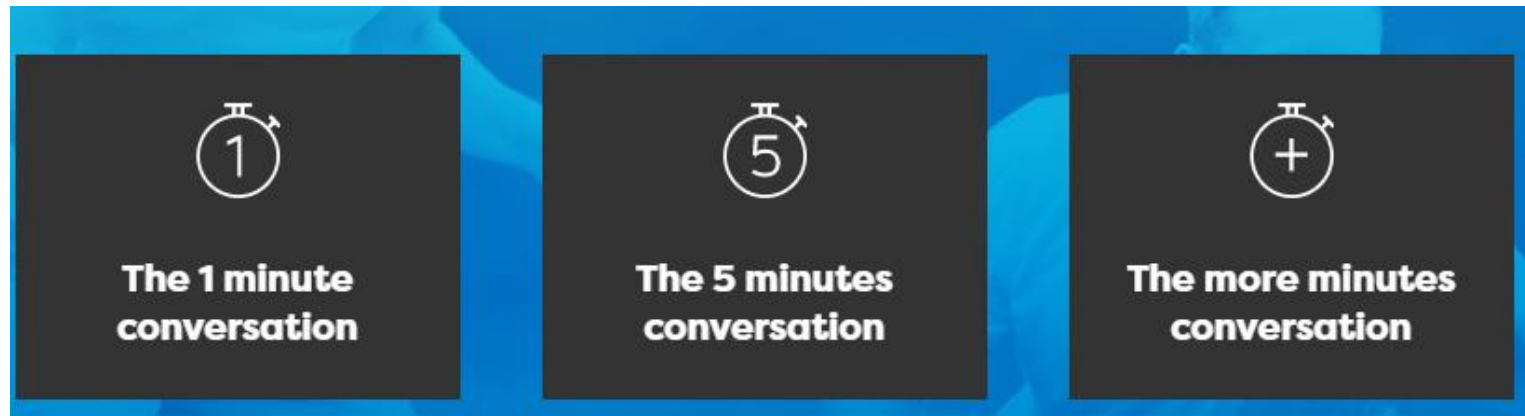
Clinical tips

Have physical activity conversations in consultations. ***Make every contact count!***

Very brief advice can be effective, especially related to long-term conditions.

‘Moderate intensity’ activity differs by individual – ***Make it achievable!***

Physical Activity conversations **can be 1, 5 or more minutes**



Understanding risk

THE BIG CHANGE:

Most people
can exercise
without visiting
a doctor first.

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

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

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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.



Spread the word

If you have enjoyed the session today please tell your colleagues how to access their **FREE** training course by following these easy steps:

1. Contact **physicalactivity@phe.gov.uk** and ask for your local Physical Activity Clinical Champion contact
2. Arrange a suitable time and place
3. Ensure your session will meet the minimum criteria
 - At least 1 hour in length
 - At least 12 - 15 healthcare professionals / trainees are able to attend (non-HCPs also welcome to attend)





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.

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With thanks to the National Centre for Sport and Exercise Medicine

