

01: THE 2019 UK PHYSICAL ACTIVITY GUIDELINES

The 2019 UK Physical Activity Guidelines

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This factsheet has been developed as a summary of the new 2019 UK Chief Medical Officers (CMO) physical activity guidelines document,¹ for all health professionals. It is the first of a series to enable all health professionals to increase their knowledge of physical activity.

Physical activity guidelines for Under-5s

The evidence-base on physical activity in the Under-5s has expanded substantially since the development of the previous set of guidelines² There is now a large body of evidence that the amount of physical activity in the Under-5 period influences a wide range of both short-term and long-term health and developmental outcomes.^{3,4} For example, low levels of physical activity have been recognised as a contributor to increasing rates of child obesity in this age group.^{5,6} It has become very clear that higher levels of physical activity are better for health, and lower levels worse, and that there are benefits to increasing levels of physical activity across the distribution of starting physical activity level.^{3,4}

Despite concern over levels of physical activity in the Under-5s, in both boys and girls, the average level of physical activity reaches a lifetime peak around the age of school-entry (5 years old) and declines thereafter (17-19 years old). Maximising the higher levels of physical activity in the early years should therefore help maintain higher levels later in childhood and adolescence.^{3,4,7,8}

Infants (less than 1 year):

- Infants should be physically active several times every day, in a variety of ways, including interactive floor-based activity e.g. crawling.
- For infants not yet mobile, this includes at least 30 minutes of tummy time spread throughout the day while awake (and other movements such as reaching and grasping, pushing and pulling themselves independently, or rolling over); more is better.

NB: Tummy time may be unfamiliar to babies at first, but can be increased gradually, starting from a minute or two at a time as the baby becomes used to it.

Babies **should not** sleep on their tummies

Toddlers (1-2 years):

- Toddlers should spend at least **180 minutes (3 hours)** per day in a variety of physical activities at any intensity, including active and outdoor play, spread throughout the day; more is better.

Physical activity for early years (birth – 5 years)

Active children are healthy, happy,
school ready and sleep better



BUILDS
RELATIONSHIPS
& SOCIAL SKILLS



MAINTAINS
HEALTH &
WEIGHT



CONTRIBUTES TO
BRAIN DEVELOPMENT
& LEARNING



IMPROVES
SLEEP

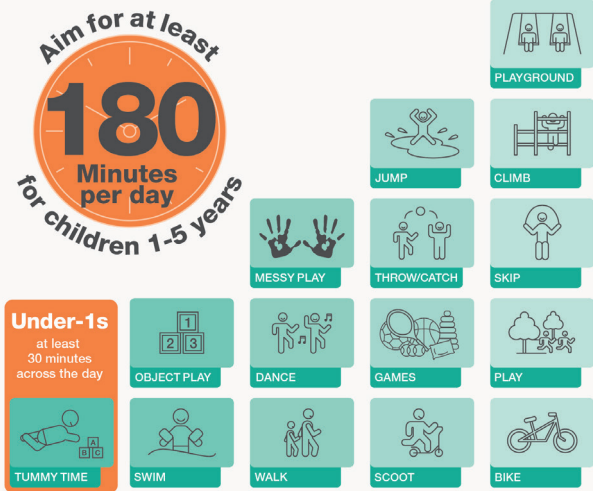


DEVELOPS
MUSCLES
& BONES



ENCOURAGES
MOVEMENT
& CO-ORDINATION

Every movement counts



Get Strong. Move More. Break up inactivity

UK Chief Medical Officers' Physical Activity Guidelines, 2019

[Download the new CMO infographic here](#)

Pre-schoolers (3-4 years):

- Pre-schoolers should spend **at least 180 minutes (3 hours)** in a variety of physical activities spread throughout the day, including active and outdoor play. More is better; the 180 minutes should include at least 60 minutes of moderate-vigorous intensity physical activity (MVPA).

Physical activity, in the Under 5s should not be viewed in isolation, but more as a continuum into older childhood and adolescence. There is increasing evidence for the benefits of adequate physical activity and sleep and the risks of some sedentary behaviour in school-age children and adolescents.⁹⁻¹¹

Levels of these behaviours in the pre-school period are closely related to later levels in school-age children and sedentary behaviour increases from the age of school entry which then displaces physical activity and/or sleep.¹²⁻¹⁵

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Children and young people (5-18 years of age):

- Should engage in moderate-to-vigorous intensity physical activity for an **average of 60 minutes per day** across the week. (This activity can include all forms of activity such as physical education, active travel, after-school activities, play and sports).
- Should engage in a variety of types and intensities of physical activity across the week to develop movement skills, muscular fitness, and bone strength.
- Should aim to minimize the amount of time spent being sedentary and when physically possible should break up long periods of not moving with at least light physical activity.

Adults (aged 19-65):

- For good physical and mental health, adults should aim to be physically active every day. Any activity is better than none, and more is better still.
- Adults should do activities to develop or maintain strength in the major muscle groups. These activities could include heavy gardening, carrying heavy shopping, or resistance exercise. Muscle strengthening activities should be done twice a week, but any strengthening activity is better than none.
- Each week, adults should **accumulate at least 150 minutes (2 ½ hours) of moderate intensity activity** (such as brisk walking or cycling); or **75 minutes of vigorous intensity activity** (such as running); or even shorter durations of very vigorous intensity activity (such as sprinting or stair climbing); or a combination of moderate, vigorous and very vigorous intensity activity.
- However, it is important to remember that **any activity is better than none**, and more is better still.
- Adults should aim to minimise the amount of time spent being sedentary, and when physically possible should break up long periods of inactivity with at least light physical activity.

Physical activity for children and young people (5-18 Years)

BUILDS CONFIDENCE & SOCIAL SKILLS

MAINTAINS HEALTHY WEIGHT

DEVELOPS CO-ORDINATION

STRENGTHENS MUSCLES & BONES

IMPROVES SLEEP

IMPROVES CONCENTRATION & LEARNING

IMPROVES HEALTH & FITNESS

MAKES YOU FEEL GOOD

Be physically active

Spread activity throughout the day

60

Aim for an average of at least **60 minutes per day** across week

All activities should make you breathe faster & feel warmer

PLAY

RUN/WALK

BIKE

ACTIVE TRAVEL

SWIM

SKATE

SPORT

PE

SKIP

CLIMB

WORKOUT

DANCE

Get strong **Move more**

Activities to develop movement skills, and muscle and bone strength **ACROSS WEEK**

Find ways to help all children and young people accumulate an average of at least 60 minutes physical activity per day across the week

UK Chief Medical Officers' Physical Activity Guidelines, 2019

Physical activity for adults and older adults

Benefits health

Improves sleep

Maintains healthy weight

Manages stress

Improves quality of life

Type II Diabetes -40%

Cardiovascular disease -35%

Falls, depression etc. -30%

Joint and back pain -25%

Cancers (colon and breast) -20%

Reduces your chance of

Some is good, more is better

Make a start today: it's never too late

Every minute counts

Be active

at least **150** minutes moderate intensity per week

increased breathing able to talk

OR

at least **75** minutes vigorous intensity per week

breathing fast difficulty talking

Build strength

to keep muscles, bones and joints strong

on at least **2** days a week

Swim

Brisk walk

Cycle

Gym

Yoga

Carry heavy bags

Run

Stairs

Sport

Bowls

Tai Chi

Minimise sedentary time

Break up periods of inactivity

Improve balance

For older adults, to reduce the chance of frailty and falls

2 days a week

UK Chief Medical Officers' Physical Activity Guidelines 2019

[Download Children and young people infographic here](#)

[Download Adult/Older adult PA Guideline infographic here](#)

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Older Adults (65+ years)

- Older adults should participate in daily physical activity to gain health benefits, including maintenance of good physical and mental health, wellbeing, and social functioning. **Some physical activity is better than none**, even light activity brings some health benefits compared to being sedentary while more daily physical activity provides greater health and social benefits.
- Older adults should maintain or improve their physical function by undertaking activities aimed at improving or maintaining muscle strength, balance and flexibility on at least 2 days a week. These could be combined with sessions involving moderate aerobic activity or could be additional sessions aimed at these components of fitness.
- Each week older adults should aim to **accumulate 150 minutes (2½ hours) of moderate intensity aerobic activity**, building up from current levels. Those who are already regularly active can achieve these benefits through 75 minutes of vigorous intensity activity, or a combination of moderate and vigorous activity, to achieve greater benefits. Weight-bearing activities which create an impact through the body help maintain bone health.
- Older adults should break up prolonged periods of sitting with light activity when physically possible or at least with standing as this has distinct health benefits for older people.

Physical activity during pregnancy and during postpartum

Pregnancy is considered a powerful motivator for behaviour change and a favourable period to adopt a healthy lifestyle, with the increased motivation to self-care coupled with frequent access to maternity services. Physical activity can be safely recommended during and after pregnancy. UK Chief Medical Officers recommend that pregnant women aim for at least 150 minutes of moderate physical activity every week.

- Pregnant women who are already active should be encouraged to maintain their physical activity levels. However, they may need to change the type of activity undertaken and adapt their activity throughout their pregnancy, for example, replacing contact sports with non-contact sport or an appropriate exercise class.
- Women who have been sedentary before pregnancy are recommended to follow a gradual progression – **'not active – start gradually'**.
- Vigorous physical activity is not recommended for previously inactive women.

- Strengthening activities twice a week are recommended.
- It is important to highlight to women that **'every activity counts'** and that they should always **'listen to your body and adapt'** what they do accordingly.

Benefits of physical activity during pregnancy identified are:

- A reduction in hypertensive disorders
- Improved cardiorespiratory fitness
- Lower gestational weight gain
- A reduction in risk of gestational diabetes

See the specific Pregnancy factsheet in these resources for further information.



[Download the Physical activity for pregnant women infographic here](#)

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The benefits of physical activity in the postpartum period (up to one year) include

- A reduction in depression
- Improved emotional wellbeing
- Improved physical condition
- A reduction in postpartum weight
- A faster return to pre-pregnancy weight

Physical activity can be safely recommended to women after pregnancy and have no negative impact on breast feeding postpartum.

After the six to eight week postnatal check and depending on how the individual woman feels, more intense activities can gradually resume, i.e. building up intensity from moderate to vigorous over a period of at least 3 months.

Physical activity for women after childbirth (birth to 12 months)

Time for yourself - reduces worries and depression

Improves fitness

Helps to control weight and return to pre-pregnancy weight

Improves mood

Improves tummy muscle tone and strength

Improves sleep

Not active? Start gradually

Active before? Restart gradually

Out and about

Leisure

Home

aim for at least 150 minutes of moderate intensity activity every week

Start pelvic floor exercises as soon as you can and continue daily

Build back up to muscle strengthening activities twice a week

It's safe to be active. No evidence of harm for post partum women

Depending on your delivery listen to your body and start gently

You can be active while breastfeeding

UK Chief Medical Officers' Physical Activity Guidelines, 2019

Download the physical activity for women after childbirth infographic here

Physical activity for disabled adults

Disability refers to people who have long-term physical (e.g. spinal cord injury), sensory (e.g. visual impairment), cognitive (e.g. learning difficulties), and/or mental impairments (e.g. depression) which in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others. Rather than focusing on just one impairment the UK CMO guidelines considered a range of impairments.

See United Nations Convention on the Rights of Persons with Disabilities

UK CMO's have reviewed the evidence base on physical activity and the general benefits for disabled adults¹⁶. It found that with respect to safety, no evidence exists that suggests appropriate physical activity is a risk for disabled adults and that the health benefits for disabled adults of engaging in physical activity were comparable with those for the rest of the adult population.

It concluded that any myths about physical activity being inherently harmful for disabled people should be dispelled.

Physical Activity for Disabled Adults

Make it a daily habit

Disabled adults

Physical activity makes you feel good

Being inactive is harmful to health

Don't be still for too long

Even a little movement is better than nothing

Improves mental health and quality of life

Makes maintaining a healthy weight easier

Makes daily tasks easier and increases independence

Strengthens muscles and bones

Improves fitness

Creates opportunities to meet new people and feel part of the community

Helps to prevent chronic disease

Improves mobility and balance

Do strength and balance activities on at least two days per week

For substantial health gains aim for at least 150 minutes each week of moderate intensity activity

Remember the talk test: Can talk, but not sing = moderate intensity activity

Difficulty talking without pausing = vigorous intensity activity

UK Chief Medical Officers' Physical Activity Guidelines, 2019

Download the physical activity for disabled adults here

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Key principles of physical activity

Physical activity for good health and wellbeing

Regular physical activity provides a range of physical and mental health benefits. These include reducing the risk of disease, managing existing conditions, and developing and maintaining physical and mental function. More details on the conditions that benefit from physical activity follow in other factsheets of these resources.

Some is good, more is better

Our understanding of the relationship between physical activity and health has grown. In general, the more time spent being physically active, the greater the health benefits. However, we now know that even relatively small increases in physical activity can contribute to improved health and quality of life. The gains are especially significant for those currently engaging in the lowest levels of activity (fewer than 30 minutes per week), as the improvement in health for each additional minute of physical activity will be proportionately greater (Fig 1).

Although we recommend that all individuals work towards achieving these guidelines, they are not absolute thresholds and we recognise the benefits that can be achieved at levels both above and below the thresholds. The previous requirement for a 10-minute bout of activity is no longer valid and is no longer included. However, specific targets -such as aiming to do at least 10 minutes at a time -can be effective as a behavioural goal for people starting from low levels of activity.¹⁷

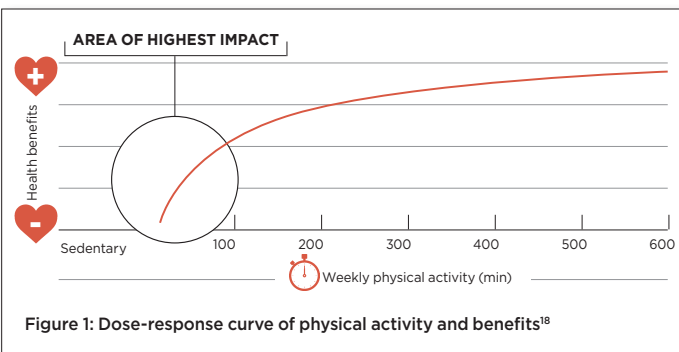


Figure 1: Dose-response curve of physical activity and benefits¹⁸

Muscle and bone strengthening and balance training activities

Muscle and bone strength play a critical role in ensuring good muscular and skeletal health, and in maintaining physical function. When undertaking muscle strengthening activities, it is important to work all the major muscle groups. Bone strengthening involves moderate and high impact activities to stimulate bone growth and repair.

Strengthening activities are important throughout life for different reasons: to develop strength and build healthy bones during childhood and young adulthood; to maintain strength in adulthood; and to delay the natural decline in muscle mass and bone density which occurs from around 50 years of age, maintaining function in later life.

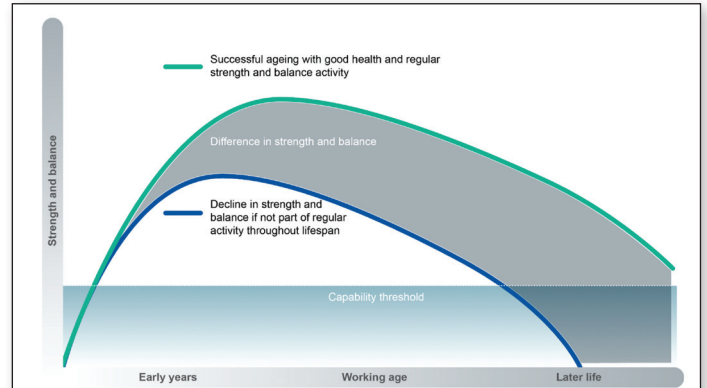


Figure 2: Physical activity for muscle and bone strength across the life course^{19, 20}

Balance training involves a combination of movements that challenge balance and reduce the likelihood of falling²¹.

Different activities have differential effects on muscle and bone strength and balance.

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	★★	?	★★
Cycling	★	★	★

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

Table 1: Types of activities that can help maintain or improve aerobic capacity, strength, balance and bone health and contribute to meeting the physical activity guidelines²⁰

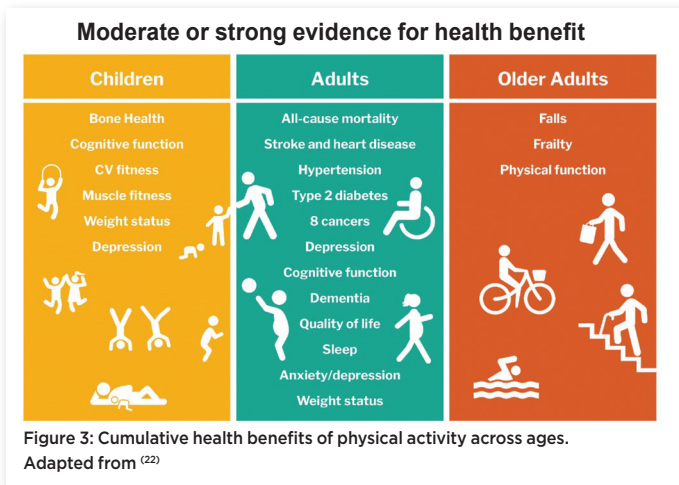
Wider benefits of being active

Physical activity not only promotes good health and functioning and helps prevent and manage disease. It also contributes to a range of wider social benefits for individuals and communities.

The relevance and importance of the wider benefits of physical activity for individuals vary according to life stage and various other factors but include: improved learning and attainment, managing stress and improved well-being, improved sleep, the development of social skills, and better social interaction.

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In addition to the health benefits, increasing physical activity across a population also has social, environmental and economic benefits for communities and wider society.



Assessment of present levels of activity:

In most consultations with patients, opportunities arise where the subject of physical activity may be used for prevention or treatment of disease. Assessing a baseline of activity is recommended to either raise the issue of physical activity, measure progress or help shape any subsequent advice. There are many assessment questionnaires available and two most commonly used are:

- **The UK General Practice Physical Activity Questionnaire (GPPAQ)²³** can be used to categorize patients into recommended levels of activity.

[Download the GPPAQ questionnaire and Read codes here:](#) ²³

- **The Scot-PASQ²⁴** A brief assessment using just three questions. Used as a motivational screening tool to help raise the issue of physical activity and deliver advice

- In the past week, on how many days have you been physically active for a total of 30 minutes or more?
- If four days or less, have you been physically active for at least two and a half hours (150 minutes) over the course of the past week?
- Are you interested in being more physically active?

[Read the brief guidance on how to use the Scot-PASQ tool by downloading it here:](#) ²⁴

Take home messages:

- Physical activity is an important part of the lifestyle for any patient because of the overwhelming evidence of the health benefits at all ages.
- Being active every day provides a foundation for a healthier and happier life.
- Even relatively small increases in physical activity can contribute to improved health and quality of life.
- Regular strength and balance activities are important throughout life: being strong makes all movement easier and increases our ability to perform normal daily tasks.
- Any activity is better than none.

[Read the full CMO report in English or Welsh here:](#)

[Read the NICE guidelines on Physical activity: brief advice for adults in primary care PH44 here:](#)

Consider:

1. Auditing your patients to see if they have been offered any physical activity advice.
2. Advising on diagnosis of the importance of this lifestyle approach for their own well-being.

Benefits to health professionals:

Reduced admissions, drug costs, appointments and visits.

Signpost patients to:

The public website [Benefit from Activity](#) containing this information

Extracted from the Health Education and Improvement in Wales (HEIW) CPD module on physical activity [Motivate2Move](#). Part of the RCGP clinical programme on physical activity and lifestyle

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Glossary:

Aerobic exercise is brisk exercise that promotes the circulation of oxygen through the blood and is associated with an increase rate of breathing.

Balance is the ability to maintain equilibrium while moving or while stationary. Balance activities are those activities that involve the maintenance of the body balance while stationary or moving. They are an essential part of life as we get older to prevent falls and particularly when going to the bathroom, bed or getting up from a chair.

Bone health includes bone quality that refers to the capacity of bones to withstand a wide range of loading without breaking. Bone health also includes bone mineral content, structure, geometry and strength.

Flexibility is the range of motion available at a joint or group of joints. Essential for daily living in bending e.g. to put socks and shoes on or rotating to look behind you.

Metabolic Equivalent of Task (MET) is the objective measure of the ratio of the rate at which a person expends energy, relative to the mass of that person, while performing some specific physical activity compared to the energy expended whilst sedentary.

Moderate physical activity (MPA) is an activity that requires a moderate amount of effort and noticeably accelerates heart and breathing rate, with brisk walking being the easiest example to recognise.

Moderate-to-vigorous physical activity (MVPA) are activities that can be done at different intensities like cycling. They can be differentiated by the 'talk test': being able to talk but not sing indicates moderate intensity activity, while having difficulty talking without pausing is a sign of vigorous activity.

Muscle Strength is the force or tension that a muscle or muscle group can exert against a resistance in one maximal effort. In practical terms this is the ability to climb stairs, get out of a chair or bath, the ability to walk to the shops and is essential as we age to reduce the risk of falls.

Physical activity is defined as any bodily movement produced by skeletal muscles that results in energy expenditure. **Exercise** is a subset of **physical activity** that is planned, structured, and repetitive and has as a final or an intermediate objective the improvement or maintenance of physical fitness.

Postpartum refers to a period of time after the end of pregnancy. The postpartum period is commonly defined as up to six weeks following the end of pregnancy, with the late postpartum period from six weeks up to one year after the end of pregnancy. For the CMO guidelines postpartum includes up to one year post delivery.

Sedentary behaviour. Inactive and sedentary behaviours are those involving being in a sitting, reclining or lying posture during waking hours, undertaking little movement/activity and using little energy above what is used at rest. Common sedentary behaviours include TV viewing, video game playing, computer screen time, driving and reading.

Vigorous physical activity (VPA) is an activity that requires a large amount of effort and causes rapid breathing and substantial increase in heart rate.

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