

# Interpreting the UK physical activity guidelines for children and young people (5-18)

Guidance for those who work with children and young people





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#### Who is this for?

This booklet provides information for all those involved in promoting and delivering physical activity to children and young people, including physical activity leaders, teachers, youth workers, play workers, GPs, school nurses, sports coaches, sports development officers, exercise instructors and other professionals in health, education, leisure, play, recreation, fitness and the voluntary sector.

#### How can it help you?

Reading this booklet will:

- make you aware of the physical activity guidelines for children and young people
- help you to interpret the guidelines and understand what types and amounts of physical activity children and young people should do
- help you to understand why physical activity is important
- help you to shape your programmes to motivate even the least active children and young people to meet the guidelines.

#### Key term - children and young people

In this document, the term *children and young people* is used to describe those aged 5-18 years.

The term *children* is used when specifically referring to those aged 5-12 years and the term young people when referring to those aged 13-18 years.

Achieving the physical activity guidelines for children and young people can have important implications for their immediate and long term health and wellbeing.

#### Acknowledgements

We would like to thank Liz Prosser and Paul Jarvis for reviewing this document and providing valuable feedback.



#### The UK Chief Medical Officers' 2011 physical activity guidelines for children and young people

The updating of the UK physical activity guidelines for children and young people in 2011 followed the lead of other countries. The guidelines are based on evidence from research and provide information on how much physical activity is required to achieve health and other benefits (highlighted on page 4).

# What are the current (2011) UK physical activity guidelines for children and young people?

**Guideline 1:** All children and young people should engage in moderate to vigorous intensity physical activity for at least 60 minutes and up to several hours every day.

**Guideline 2:** Vigorous intensity activities, including those that strengthen muscle and bone, should be incorporated at least three days a week.

**Guideline 3:** All children and young people should minimise the amount of time spent being sedentary (sitting) for extended periods.

A full copy of the Chief Medical Officers' report Start active, stay active (2011) is available to download at www.bhfactive.org.uk/guidelines

# How do these guidelines differ from the previous ones?

The key differences between the 2011 UK physical activity guidelines and the previous guidelines for this age group are:

- inclusion of vigorous physical activity in recognition of the additional benefits this can provide; the previous guidelines focused on moderate intensity activity
- emphasis that the 60 minutes a day is a minimum with the addition of the statement 'and up to several hours each day'
- frequency of activities to strengthen muscle and bone has increased from two days to at least three days a week
- there is no guideline relating to flexibility
- the addition of a new guideline relating to reducing the amount of sedentary behaviour.





# Are the guidelines for all children and young people?

These guidelines are relevant to all those aged between 5 and 18, irrespective of their gender, race or socio-economic status. However, the guidelines cover a wide age range and consequently apply to children and young people at various stages of growth and development with differing abilities, activity levels, interests and needs. It is therefore recommended that the guidelines are adapted to each young person's needs and abilities.

For children and young people with a disability, the guidelines will need to be modified according to their individual physical and mental capabilities, taking into consideration any special health issues or risks.

Those who are overweight or obese may need to do higher levels of physical activity combined with a reduction in calorie intake to achieve and maintain a healthy weight (for these children and young people the emphasis should be on duration and frequency of physical activity). However, overweight or obese children can gain health benefits from meeting the guidelines even if their weight doesn't change (eg, physical activity increases lean body mass, increases energy expenditure, leads to favourable changes in blood cholesterol levels and improves psychological wellbeing).

Regular physical activity has many benefits for overweight/obese children and young people even if they don't lose weight.

# How to use the physical activity guidelines

The guidelines are issued by the four Chief Medical Officers (CMOs) of England, Scotland, Wales and Northern Ireland and draw on global evidence for the health benefits of regular physical activity throughout the life course.

These guidelines are written for professionals who work with children and young people. They take the form of evidence-based summary statements that are the basis for increasing the overall physical activity levels of all children and young people. The guidelines as written in the CMO report are not intended to be used as communication messages with parents/carers or children and young people themselves, eg, for motivation, promotion and marketing purposes.

The guidelines will need to be interpreted and presented differently when directly communicating with children, young people and their parents/carers (see page 18).

In general, the CMO physical activity guidelines and the advice in this document should be used to:

- inform the professional development and training of those working with children and young people
- form the basis of any advice given to children, young people and/or their parents/carers within different settings
- underpin the design and implementation of physical activity programmes
- provide a focus for national and local campaigns designed to target children, young people and their parents/carers (once translated into appropriate communication messages)
- inform educational materials (booklets, leaflets, mobile phone apps) and other forms of written and web-based advice and guidance for children, young people and their parents/carers
- inform the marketing and promotion of local opportunities and programmes for children and young people.

# Why do we need physical activity guidelines for children and young people?

# Physical activity is important for all children and young people

If we help children and young people establish active lifestyles, this can lead to both short and long term health benefits as well as a range of other important benefits.

Regular physical activity in children and young people promotes health and fitness. Evidence indicates that participation in regular physical activity by those aged 5-18 is associated with:

- improved cardiovascular health
- improved bone health
- reduced body fat and maintaining a healthy weight
- improved cardiorespiratory fitness
- stronger muscles
- improved self confidence
- improved social skills
- reduced symptoms of anxiety and depression.

Although children and young people don't usually develop chronic diseases such as heart disease, risk factors for these diseases can begin during childhood and adolescence. Regular physical activity can reduce the likelihood of these risk factors developing and, if high volumes of physical activity are maintained into adulthood, this will help to reduce the risk of morbidity and mortality from chronic noncommunicable diseases (eg, cardiovascular disease, diabetes, cancers) later in their lives.

In addition to health and fitness benefits, children and young people learn and develop core skills such as running, jumping, throwing, catching and kicking by taking part in a variety of physical activities. This will help build their confidence, competence and motivation to participate in physical activity and to take part in a wide range of activities as they get older.<sup>(1,2,3)</sup> Other benefits may include improved selfesteem<sup>(4)</sup>, improved cognitive function<sup>(4)</sup> and improved academic performance<sup>(5)</sup>.

# Levels of physical activity participation are relatively low

Self-reported levels of physical activity in children and young people vary across the UK (this is possibly partly due to different methods of collecting data), but data indicate that there are still significant numbers of children and young people not achieving the recommended levels of physical activity, ie, they are inactive.

# Percentage of 2-15 year olds meeting the CMO physical activity guidelines in Great Britain (as measured by self-report)

	England <sup>(7)</sup>	Scotland <sup>(6)</sup>	Wales <sup>(9)*</sup>
Boys	32%	76%	56%
Girls	24%	70%	45%

\* Figures for Wales are for 4-15 year olds who participate in 60 minutes on 5 or more days a week.

According to self-report measures, in England 24% of boys and 29% of girls aged 2 to 15 do less than 30 minutes physical activity per day with particularly low levels of activity among girls aged 15 years, 45% of whom do less than 30 minutes per day<sup>(7)</sup>.

Across all countries boys are more active than girls and in both England and Scotland there is a notable decrease in activity levels after the age of ten. Only 15% of 15 year old girls in England<sup>(7)</sup> and 48% of girls aged 13 to 15 in Scotland<sup>(6)</sup> achieve recommended levels.

Objective measures (using accelerometers) have highlighted particularly low levels of physical activity among older children. In England, only 7% of boys aged 11 to 15 and no girls in this age group met recommended levels<sup>(7)</sup>.





# Reducing levels of sedentary behaviour is important

The evidence suggests that prolonged periods of sedentary behaviour may increase the risk of some health outcomes even among those who are active at the recommended levels. Emerging evidence indicates that sedentary behaviours are associated with unfavourable body composition (eg, increased body mass index, body weight and/or fat mass), decreased fitness and adverse cardiovascular disease risk factor profiles (eg, higher levels of cholesterol and higher blood pressure) in young people<sup>(10)</sup>. Sedentary behaviour is also associated with lowered self-esteem and decreased academic performance in children and young people<sup>(10)</sup>. While there is a need to reduce sedentary behaviour, it is important to remember that rest and sleep are also essential for this age group.

#### Key term - physical inactivity

Physical inactivity is described as doing no or very little physical activity at work, home, for transport or during discretionary time ... not reaching physical activity guidelines deemed necessary to benefit public health.<sup>(9)</sup>

#### Levels of sedentary behaviour are relatively high

Sedentary behaviours such as travelling by car, watching television and playing computer or video games are very common among children and young people.

Among children aged 2-15 in England, self-reported average sedentary time (excluding time at school and sleep) was similar for both boys and girls on both weekdays (3.4 hours for both) and weekend days (4.1 hours for boys and 4.2 hours for girls)<sup>(7)</sup>. In Scotland, 31% of 6 year olds spend more than 3 hours on screen time on weekdays<sup>(12)</sup>. Older children in England were more likely to report longer periods of sedentary behaviour, about 30% of both boys and girls aged 15 years reported spending more than 6 hours being sedentary outside of school on weekdays and about 40% of this age group reported this level of sedentary time at weekends<sup>(7)</sup>.

Objective measures (using accelerometers) suggest higher levels of sedentary behaviour in children and young people<sup>(7)</sup>.

#### Key term - sedentary behaviour

Sedentary behaviour is not defined simply as a lack of physical activity. It refers to a group of behaviours that occur whilst sitting or lying down and that typically require very low energy expenditure<sup>(11)</sup>. The low energy requirements distinguish sedentary behaviours from other behaviours that also occur whilst seated but require greater effort and energy expenditure, eg, using a rowing machine.

#### Interpreting the CMO 2011 physical activity guidelines for children and young people

This section provides greater detail on each of the guidelines with the purpose of providing professionals with an understanding of their relevance and how they apply to their work with children and young people.

When interpreting the guidelines, consideration should be given to individual physical and mental capabilities.

#### Guideline 1

All children and young people should engage in moderate to vigorous intensity physical activity for at least 60 minutes and up to several hours every day.

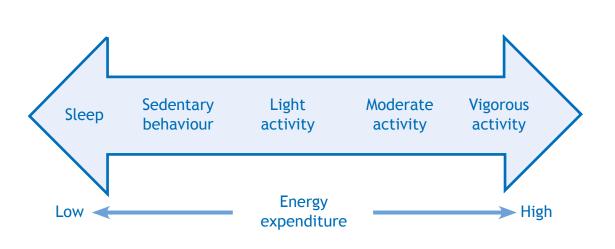
#### Some activity is better than none

- 60 minutes a day may be a challenge for some children and young people due to a busy life or low levels of fitness.
- For those children and young people who are inactive, (ie, doing very low levels of activity) doing some physical activity, even if it is less than the recommended guidelines, may provide some health benefits.

- For children and young people who are currently inactive, a gradual increase in physical activity is recommended with intermediate goals to work towards (see page 10).
- For those who are inactive even 30 minutes of daily activity will provide benefits and may serve as a 'stepping stone' to higher levels of activity.

### The 60 minutes of physical activity can be accumulated across the day

- The 60 minutes doesn't all have to be done as one session, children and young people can meet the guideline through accumulating shorter bouts of activity across the day, for example 10 minutes at a time. Children's typical activity patterns tend to be 'stop-start' with activity occurring regularly in periods of at least ten minutes.
- For those who currently have low levels of physical activity, accumulating shorter bouts of physical activity may be a more achievable way of meeting the CMO guidelines.



#### Movement and energy expenditure continuum





Movement and energy expenditure continuum

The majority of the physical activity should be aerobic-type activities at a moderate to vigorous intensity (see page 12 for examples)

- The intensity of physical activity should be above and beyond that experienced during daily living.
   Light activity, such as moving around the house and walking slowly between school lessons or whilst shopping, may help in breaking up too much sitting, but does not count towards the 60 minutes a day.
- Moderate intensity physical activities will cause children to get warmer, breathe harder and their hearts to beat faster than usual, but they should still be able to carry on a conversation.



- The level of effort required by a child or young person to do an activity at moderate intensity varies from one person to another depending on an individual's level of fitness.
- In general, the higher the intensity of effort, the greater the health and fitness benefit.
- It may help to ask young people to focus on their perception of the effort needed for an activity.
   On a perceived effort scale of 0 (no effort) to 10 (maximum effort) moderate intensity physical activity is usually rated 5-6. This will need an introduction and explanation before being used.
- Examples of aerobic-type activities are physically active play involving running and chasing, brisk walking, cycling, swimming, dancing, running, playing sport (see page 12 for more examples).

# Doing more physical activity provides greater health benefits

- There is a dose-response relationship between physical activity and health benefits which indicates that 'more is better'.
- Regular participation in more than 60 minutes a day and/or participation in more vigorous activity will lead to even greater health benefits.

# Maintain levels of light activities, eg, routine tasks of daily living

 Increasing levels of moderate to vigorous activity should be done while maintaining or increasing light, incidental physical activity (eg, moving around the house or walking slowly between lessons at school).

#### Guideline 2

Vigorous intensity activities, including those that strengthen muscle and bone, should be incorporated at least three days a week.

### Vigorous intensity activity brings increased benefit for some fitness and health outcomes

- For some health outcomes (eg, cardiorespiratory fitness) it is necessary to participate in vigorous intensity activity.
- Vigorous intensity physical activities will cause children to get warmer, breathe much harder and their hearts to beat rapidly, making it difficult to carry on a conversation. On a scale of 0-10, vigorous activity is usually rated 7 or 8.

#### Vigorous intensity activity and activities to strengthen bone and muscle should be included within the 60+ minutes a day

- As part of their overall pattern of physical activity, on at least three days a week children and young people should include:
  - vigorous intensity aerobic activity to increase cardiorespiratory fitness, eg, running

- resistance exercise to enhance strength in the main muscles of the trunk and limbs, eg, unstructured play, such as climbing, playing on playground equipment, pushing and pulling activities or resistance training in a gym for older children
- weight-bearing activities to promote bone health, eg, as part of playing games, running, jumping and sports such as gymnastics, basketball and tennis.

# Patterns of activity in children typically include a mixture of activities which can contribute to all of the CMO guidelines

- Children typically include a mix of activities either within one session or across the day (eg, running, jumping, climbing) that can contribute to all of the guidelines, without the need for a specific focus on muscle and/or bone strengthening activities.
- The overall mix of activity should be predominantly aerobic but should also include activities that improve muscle and bone strength.
- Some activities will contribute to more than one of aspect of the guidelines at a time, eg, gymnastics is both muscle-strengthening and bone-strengthening and running is aerobic and bone-strengthening.





#### Guideline 3

All children and young people should minimise the amount of time spent being sedentary (sitting) for extended periods.

- Sedentary behaviours refer to activities that typically occur whilst sitting or lying down (not sleeping) and which require very low levels of energy expenditure.
- Common sedentary behaviours among children and young people include travelling by car, watching television and playing computer or video games.
- Evidence suggests that prolonged periods of sedentary behaviour are an independent risk factor for poor health outcomes.
- Even if children and young people are achieving the recommended levels of physical activity, if they spend large portions of the remainder of their day sitting or lying down for extended periods, this is a risk factor for poor health outcomes in itself (see page 5).
- Children and young people should be encouraged to reduce overall sedentary time and also to break up the amount of time spent sitting still or lying for long periods. For example, parents may wish to consider restricting recreational TV/ computer ('screen') time, encourage outdoor play, break up long periods of sitting still by encouraging other activities - especially when active behaviours are possible, encourage walking and cycling for short journeys. Schools may wish to encourage walking and cycling to school rather than travelling by car, encourage activity at break times and consider delivering curriculum areas through more active approaches.





# Working towards and achieving the guidelines

It is important to encourage children and young people to participate in physical activities that are appropriate for their age and stage of development, that are fun and offer variety.

There is a clear dose-response between physical activity and health benefits which indicates that doing more is better, both in terms of the total amount of activity and also the intensity. From a public health perspective the greatest benefits will come from moving children and young people from very low levels of activity to regular, moderate intensity activity; and from there gradually increasing frequency and duration through to levels of activity in excess of 60 minutes a day which include some vigorous intensity activities.

Children and young people vary in their physical activity participation and this needs to be taken into consideration when working to increase levels of activity in this age group. In addition, across this age group there will be a wide range in ability, needs, motivations and interests.

All these factors will need to be taken into consideration when encouraging and supporting children and young people to become more active. Below are some suggested goals for children and young people at differing stages of participation. Consideration of both the amount and type of activity is important when recommending physical activity. It is also important to consider how best to motivate different children and young people (see page 15).

Provide children and young people with appropriate activity goals, relevant to their level of activity, ability, needs and motivation. First, increase the number of minutes per session (duration), and the number of days per week (frequency) of moderateintensity activity and then increase the intensity.

### Encourage children and young people who do very low levels of activity to:

- slowly increase their activity in small steps and in ways that they enjoy
- gradually increase the number of days and the time spent being active, focusing initially on low then moderate intensity aerobic activity to help reduce the risk of injury
- look for ways of building activity into their daily and weekly routine, eg, walking, cycling or scootering to school, (making sure they walk with purpose and don't dawdle!) meeting up once a week with friends in the local park to play/have a kick about or meeting at someone's house to dance to music
- consider how activities they already do as part of their routine could be adapted, (eg, the walk to school) to contribute more to health benefits and what would make an activity (eg, helping with a household chore) count towards the guidelines
- make the most of opportunities to be active at school, eg, as part of PE lessons and during break times
- have an interim target of 30 minutes of moderate intensity activity a day.

These children and young people will need lots of support and encouragement. It is important to remember that doing some physical activity, even if it is less than the guidelines, will provide some health benefits.



#### Encourage children and young people who are moderately active but not meeting the guidelines to:

- gradually increase the number of days and the time spent participating in moderate intensity aerobic activity aiming to achieve 60 minutes of activity a day
- continue to explore opportunities to build activity into their daily and weekly routine, particularly opportunities for purposeful walking and cycling
- continue to make the most of opportunities at school and take more active involvement in these
- start to build in some vigorous intensity activity (see page 12 for examples) across the week until they are doing this type of activity at least three days per week
- consider joining an after school activity club or doing sport or physical activity in the community in the evenings and/or at weekends.



### Encourage children and young people who meet the guidelines to:

- continue being active on a daily basis
- if appropriate, gradually become even more active

   explore how they can enhance their current
   routine by increasing the amount of activity they
   do on some days of the week and/or increasing the
   intensity of some of their current activity
- explore different types of activity
- consider joining an after school activity/sports club at school or in the local community.

Evidence suggests that more than 60 minutes of activity every day may provide additional health benefits.

# Encourage children and adolescents who exceed the guidelines to:

- maintain their activity level
- vary the kinds of activities they do to reduce the risk of overtraining or injury
- help others to become more active.

#### Encourage all children and young people to:

- minimise and break up prolonged periods of sitting still, eg, include simple five minute activity breaks during prolonged periods of sitting in the classroom at school, move around when the adverts are on TV, decrease time spent in front of a screen and avoid using the remote control
- where possible, replace sedentary behaviours with physical activity, eg, where appropriate and safe, encourage children and young people to walk or cycle to school instead of going by car, use stairs more frequently and play active computer games
- take responsibility for making their own arrangements for participating in physical activity and sport (particularly as they get older) rather than always relying on organised sessions (eg, arranging to meet up with friends, booking facilities).

Also see 'Motivating children and young people' on page 15.

# What activities count towards meeting the CMO physical activity guidelines?

It is difficult to be prescriptive about what activities are appropriate for children and young people as this is a diverse group. Children and young people can meet the physical activity guidelines through participation in many different types and patterns of activity. The nature and type of activity will vary across this age group.

#### Types of activity

Physical activity includes everyday walking or cycling, physically active play, active recreation, such as working out in a gym, dancing, gardening or playing active games, as well as organised and competitive sport.

#### Key term - physically active play

Physically active play involves movement of all the major muscle groups and typically involves movement around an area. It tends to be used to describe young children's physical activity.

It is important that children and young people are provided with opportunities to participate in physical activity that is appropriate for their age and stage of development. If lifelong participation in activity is to be encouraged, offering variety and catering for individual needs and interests is important; as is helping children to develop confidence and competence in key movement skills. Making physical activity fun and enjoyable is also important to sustain participation.

Children and young people should experience a variety of activities in different contexts, eg, in different environments - indoors/outdoors, parks, forests, playgrounds. Activity can be unstructured and informal, (eg, physically active play, active travel) or structured, (eg, PE, sport, often with adult facilitation). The range of activities should include both individual, paired, small group activities and team sports/group activities.

To meet the physical activity guidelines children and young people need to do three types of activity:

#### Aerobic activities

These are activities that rhythmically move the large muscles. Aerobic activities raise breathing and heart rates helping to improve cardiorespiratory fitness. These types of activity should make up the majority of children's daily activity, with some of the activity at a vigorous intensity.

Examples of aerobic activities for children and young people are listed below. Quite a few of the activities are appropriate for the whole age range but some are more appropriate for children and some for young people. Make sure activities recommended are developmentally appropriate.

#### Moderate intensity aerobic activity

- Playground activities
- Active recreation such as skateboarding, rollerblading, scooting
- Bike riding (light effort)
- Brisk walking
- Swimming (leisurely)
- Games that require catching and throwing such as rounders
- · Chores around the house and garden
- Salsa dancing

#### Vigorous intensity aerobic activity

- Physically active play and games involving running and chasing
- Running
- Bike riding (moderate effort)
- Skipping with a rope



- Martial arts such as karate
- Sports such as football, hockey, tennis or basketball
- Swimming (moderate/hard)
- Exercise class
- Energetic dancing
- Cheerleading

Some activities can be moderate or vigorous depending on factors such as speed (eg, cycling slow or fast), playing position (eg, goalkeeper versus outfield player in hockey), skill level (eg, swimming) or level of engagement (eg, in sports).

#### Muscle strengthening activities

These activities make muscles work harder than normal with muscles working against a resistance or weight repetitively. Muscle strengthening activities can be part of unstructured play such as climbing on playground equipment, or can be structured such as working with resistance bands. Examples of muscle strengthening activities for children and young people include:

#### Children

- Play including:
  - swinging and climbing on playground equipment
  - pushing, pulling or carrying activities
  - skipping or jumping
- Gymnastics

#### Young people

- Resistance exercises with body weight, exercise bands or weight machines
- Climbing wall
- Gymnastics or yoga



Children and young people should experience a variety of activities, both structured and informal, in a range of settings and environments.

#### Bone strengthening activities

These activities produce a force on the bones that promotes bone strength. This force is commonly produced by impact with the ground through weightbearing activities such as running. Examples of weightbearing activities to promote bone health for children and young people include:

- games such as hopscotch (children)
- hopping, skipping, jumping
- skipping with a rope
- running
- sports such as basketball and tennis
- gymnastics
- dance.

#### Patterns of physical activity

Physical activity for children and young people naturally occurs throughout most days across various settings. This ranges from active travel to school, outdoor play in the park, PE, indoor play in dedicated play centres, school breaktimes, participation in sports and dance clubs, swimming or physically active play at youth clubs.

Children's natural activity patterns differ from adults. Younger children tend to be intermittently active, with short bursts of activity interspersed with brief rest periods. Encourage physically active play among younger children and more sustained and structured activity as they grow older. Maintaining some unstructured activity among older children is important to enable them to be independently active.

Across the week children and young people need to participate in a mix of all three types of activity:

aerobic, bone strengthening and muscle strengthening. Vigorous activity and bone and muscle strengthening activity should be done on at least three days a week as part of the overall 60 minutes a day. Separate sessions for bone and muscle strengthening activities are not necessarily needed, especially for younger children.

Younger children commonly participate in physically active play which includes aerobic type activities as well as bone strengthening activities, eg, running, jumping, skipping and hopping. These activities also help to develop movement patterns and skills. Children also commonly increase muscle strength through unstructured activities that involve lifting or moving their body weight and don't usually do or need specific muscle strengthening activities.

Older children will typically participate in aerobic type activities which also strengthen bone but may do some specific activities to strengthen muscles, eg, resistance work using body weight or resistance bands.



Across the week, children and young people need to participate in a mix of aerobic, muscle strengthening and bone strengthening activities but separate sessions for muscle and bone strengthening are not necessarily needed.



# Motivating children and young people

The 2011 CMO guidelines for children and young people represent a significant challenge, both to children and young people themselves and for services who work with them, to increase levels of physical activity. Accumulating at least 60 minutes a day of physical activity, and including activities that are vigorous and increase muscle and bone strength three days a week, will represent a substantial challenge for many children and young people; particularly those who are the least active and have most to gain from increasing activity levels.

A young person's motivation to participate in physical activity depends on a variety of personal attitudes, appropriate opportunities and broader environmental factors. Below are factors that could enable even those who are already active to increase their physical activity levels. Action to address all of these areas is needed to have maximum impact on young people's physical activity levels.

### Individual motivation to participate will depend upon:

- being involved in the selection and planning of physical activity
- an interest and belief in the benefits of physical activity being highlighted - it is important to highlight benefits that children and young people value (see page 18)
- feelings of confidence, competence, success and achievement
- a positive attitude towards physical activity
- belief in one's ability to be physically active (self-efficacy)
- activities which are enjoyable, developmentally appropriate and are consistent with personal goals and lifestyle

- activities which have appropriate cost, style, timing and location
- opportunities to challenge oneself, set goals and to improve
- social support from friends, peers and family
- on-going support and mentoring to help with setbacks
- support to access physical activity in free time
- encouragement and positive feedback from teachers, activity leaders and parents
- positive, active role models (eg, teachers, parents/carers, friends/peers)
- understanding how the body feels when activity is having a training effect and helping to improve fitness.

### Appropriate opportunities that meet their needs, which may include:

- age and developmentally appropriate school and community based programmes - programmes and activities should be designed specifically for the age and developmental level of participants
- multi-component school and community programmes which include education and advice, policy and environmental changes, the family and the community
- opportunities which focus on participation, enjoyment and personal development
- qualified teachers, leaders and coaches who are experienced working with, and engaging, children and young people (see page 17)
- high quality PE lessons which cater for children of all abilities and which help to develop physical literacy
- inclusive and progressive opportunities which encourage children to develop movement skills, regardless of their age or ability

- a range of accessible opportunities across the day
- both structured (eg, PE lessons and activity/sports clubs) and unstructured (eg, pupils being active at breaktimes) opportunities during school and outside of school
- activities that can be done independently or with friends at home
- daily opportunities for participation in physically active play, particularly for younger children
- opportunities to try out and experience a wide variety of activities, including some which offer opportunities to be creative, eg, dance and cheerleading
- opportunities in informal contexts such as youth clubs, Brownies and after-school clubs
- opportunities linked to everyday routines which can be easily incorporated, eg, walking/cycling to school
- group activities which provide opportunities for social interaction with peers and the potential to develop friendships
- opportunities to work towards a collective goal or challenge, eg, a dance show, or fundraiser where physical activity is part of the process and not necessarily the key focus
- active time with their family especially before and after school and at weekends
- opportunities that are 'on the doorstep' so children and young people can take part without needing transport, and with the support of the local community.

#### Key term - physical literacy

Physical literacy can be defined as the motivation, confidence, physical competence, knowledge and understanding to maintain physical activity throughout the life course. <sup>(13)</sup>



### Participation will also depend upon broader policy and environmental factors such as:

- a whole school approach where physical activity is embedded through every aspect of school life from policy and practice to environment and culture
- access to playgrounds, outside spaces and indoor spaces in schools which facilitate activity at breaktimes
- opening school facilities for use outside of school hours, including at weekends and during school holidays
- access to good quality, safe, accessible spaces and facilities, indoors and outdoors, across the social gradient (eg, parks, play areas, skateboard parks and green spaces)
- accessible environments that stimulate children and young people's need to explore and which safely challenge them
- creative use of non-traditional spaces for physical activity, (eg, car parks outside of working hours)



- safe and supportive environments for children and young people to walk or cycle to school
- local policies that develop physical activity pathways from schools to opportunities in the community and provide adequate funding
- local policies that ensure high quality, sustainable and age-appropriate physical activity opportunities
- support from significant others, (eg, teachers, youth workers, friends, peers, family).

### Create positive activity experiences for children and young people:

- involve children and young people in selecting and planning activities
- make activity fun
- ensure physical activity is inclusive and accessible to all
- provide a variety of activities
- adapt activity so that it's developmentally appropriate
- take account of key motivators for this age group
- set achievable goals and provide positive feedback
- ensure teachers/leaders/coaches are qualified, enthusiastic, inspiring and have experience working with children and young people.

For more guidance on promoting physical activity to children and young people see: NICE Public Health Guidance 17 Promoting physical activity, active play and sport for pre-school and school-age children and young people in family, pre-school, school and community setting's (2009) available at: www.nice.org.uk/PH17

# Appropriate teachers, leaders and coaches

Having the right people leading physical activity sessions is essential. Teachers, leaders and coaches are key to ensuring that children and young people have the confidence, competence and enthusiasm to be active. Teachers, leaders and coaches providing physical activities should:

- have appropriate qualifications and training
- be experienced working with, and engaging, children and young people
- provide activity programmes that are developmentally appropriate
- differentiate tasks/activities to cater for all children and young people in the group
- be enthusiastic, inspiring and charismatic
- be reliable
- use positive reinforcement to recognise effort and progress
- provide a supportive and safe environment, consider having 'buddies'/peer mentors to provide encouragement and support
- help children and young people understand the benefits and importance of being active and how much physical activity they should do
- increase awareness that sitting still for too long can decrease health and fitness
- help move young people from dependence to independence
- know and understand what motivates children and young people.

#### Promoting physical activity to children and young people and their parents/carers

The physical activity guidelines are aimed at professionals and are not appropriate to use directly with the public. The guidelines need to be translated into clear and simple advice that highlights key messages. Consistency in messages from all professionals is important for maximum impact.

Research commissioned by NHS Health Scotland in 2012 identifies recommendations on translating and promoting the children and young people physical activity guidelines to the public. Some of the key recommendations are summarised below.

#### Use appropriate language for messages

- Make sure information and messages are relevant to children and young people, adaptations will be needed to cater for the wide age range.
- The tone of messages and information should be warm and friendly, using informal, everyday language, not patronising or lecturing.
- Use language that is motivating for children and young people - include words such as 'fun', 'friendship' and 'variety'.
- Keep messages and advice simple, use everyday language that is easily understood, eg, rather than talking about 'moderate intensity' consider using 'medium effort', use 'healthy heart' instead of 'cardiovascular health' and 'sitting' instead of 'sedentary'.
- Think about the best ways to convey the information use appropriate language and a medium that is most likely to reach children and young people (this is likely to vary according to age).

# 'Sell' physical activity to children and young people

- Encouraging less active people to do more physical activity will be most effective on a one-to-one basis, however, this is not always practical. If you are using population level messaging encourage children and young people to find that personal connection with physical activity.
- Highlight benefits that are relevant to and valued by children and young people as these are more likely to 'hook' them in, eg, improving social skills, developing friendships, developing self-confidence and maintaining a healthy weight.
- Highlight how physical activity can fit into their lifestyle, eg, walking or cycling to school, a kick around with friends in the park, being active at a youth club, joining a sport or activity club.
- Offer physical activity which provides the opportunity of achieving some other goal, eg, fundraising events, mass participation events, school projects. Consider messages that use these 'hooks' to motivate children and young people to participate.

# Highlight the whole range of physical activities and make activity attractive and accessible to all

- Emphasise the achievable, 'everyday' nature of physical activity when trying to reach the least active. Highlight and promote the whole range of physical activities so that children and young people understand it isn't just about structured sport but can also include physical activity they can easily fit into their daily lives.
- Encourage children and young people to sit less each day and to break up activity into shorter bouts so that becoming and staying more active seems more manageable.
- Highlight activities that young people who are inactive may prefer, eg, informal activities in youth settings, community centres, parks, forests or after school club settings, active travel, group activities.



- Highlight 'purposeful' walking as a valuable form of physical activity.
- Messages and information should highlight how to access local services.

### Engage and highlight those who can provide support

- Engage those people to whom children and young people are most likely to listen to raise the issue of physical activity and provide support and encouragement, eg, friends, peers and relatives, community role models, adults in informal and social settings, personalities.
- As part of messaging consider highlighting support available, include sources that are relevant to, and valued by children and young people. Support can come from many sources, including family, friends, youth leaders and media. Providing on-going support helps to motivate children and young people to continue being active.

For more information on the NHS Health Scotland research, download *Development of key themes for physical activity promotion for the early years, children and young people* (2012)<sup>(14)</sup> from the Physical Activity and Health Alliance website at www.paha.org.uk

#### Key message

The key activity message for this age group is: At least 60 active minutes every day





20 Interpreting the UK physical activity guidelines for children and young people (5-18)

#### Resources to help promote physical activity and reduce sedentary behaviour among children and young people

# British Heart Foundation children and young people resources

The British Heart Foundation produces a number of free resources for schools. Visit www.bhf.org.uk/publications

60 minutes a day primary or secondary school posters

Active Schools Pack (Primary)

Bizzy breaks poster (7-11 years)

Get kids on the go (parents)

Jump Rope for Heart/Ultimate Dodgeball information leaflet for schools

Artie's Olympics information leaflet (3-8 years)

Let's get active pocket planner and award

(7-11 years)

Active Club Pack

The Big Heart Book

Artie Beat Club

The British Heart Foundation has also developed a number of websites aimed at different age groups **www.cbhf.net** for children under 11s and **www.yheart.net** for those over 11.

# BHF National Centre for Physical Activity and Health physical activity fact sheets

Up to date statistics on activity levels and sedentary behaviour. Visit **www.bhfactive.org.uk** 

#### Department of Health Start active, stay active, Chief Medical Officers' Report (2011)

For the full report on physical activity for health which summarises the new guidelines. Available at www.dh.gov.uk/publications or www.dh.gov.uk/ health/2011/07/physical-activity-guidelines

#### Department of Health, Change4Life

Change4Life is a campaign which encourages people in Britain to lead healthier lives. www.nhs.uk/Change4Life

#### Designed to Move: A Physical Activity Action Agenda

Co-authored by many organisations, this document provides a framework for action to integrate physical activity back into lives. There is a focus on children and practical ways to increase their levels of physical activity. http://designedtomove.org

#### **NHS Choices**

NHS Choices provides information to allow people to make choices about their health. For NHS Choices' information about physical activity for children and young people visit www.nhs.uk/livewell/fitness/pages/ physical-activity-guidelines-for-young-people

#### NICE Public Health Guidance 17

Promoting physical activity, active play and sport for pre-school and school-age children and young people in family, pre-school, school and community settings, NICE (2009). Available at www.nice.org.uk/PH17

#### Play England resources

Play England have a wide-range of research, good practice and guidance to support increased play among children. For more information visit www.playengland.org.uk

#### Scope 'Games all children can play'

This resource is intended for families and group leaders who work in any play setting with disabled and nondisabled children. Download for free from www.scope.org.uk/help-and-information/ publications/games-all-children-can-play

#### StreetGames Training Courses and Case Studies

StreetGames is the national charity changing lives through sport in disadvantaged areas. For training courses, 'how to' guides, research and cases studies, visit www.streetgames.org

# Sustrans active travel information sheets and cycle maps

Sustrans is the leading UK charity encouraging people to travel by foot, bike or public transport for everyday journeys. For more information visit www.sustrans.org.uk

#### Youth Sport Trust resources and programmes

The Youth Sport Trust is a charity with a mission to build a brighter future for young people through PE and Sport. For more information visit www.youthsporttrust.org



#### References

- LeGear, M, Greyling, L, Sloan, E, Bell RI, Williams, B, Naylor, P, Temple, VA. A window of opportunity? Motor skills and perceptions of competence of children in Kindergarten. *International Journal of Behavioral Nutrition and Physical Activity* 2012; 9:29 doi:10.1186/1479-5868-9-29
- Wrotniak, BH, Epstein, LH, Dorn, JM, Jonesc, KE, Kondilisc, VA. The Relationship Between Motor Proficiency and Physical Activity in Children. *Pediatrics* 2006;118;e1758 doi: 10.1542/peds.2006-0742
- Stodden, DF, Goodway, JD, Langendorfer, SJ, Roberton, MA, Rudisill, ME, Garcia and Garcia, LE. A Developmental Perspective on the Role of Motor Skill Competence in Physical Activity: An Emergent Relationship. Quest, 2008;60(2): 290-306
- National Institute for Health and Clinical Excellence (NICE) 7. Public Health Collaborating Centre - Physical activity; Promoting physical activity for children Review One: Descriptive epidemiology. National Institute for Health and Clinical Excellence. London, 2007
- Rasberry, CN, Lee, SM, Robin, L, Laris, BA, Russell, LA, Coyle, KK, Nihiser, AJ. The association between schoolbased physical activity, including physical education, and academic performance: A systematic review of the literature. *Preventive Medicine* 2011; 52: S10-S20
- 6. The Scottish Government. *The Scottish Health Survey* 2011 Volume 2: Children. The Scottish Government: Edinburgh, 2012.
- 7. Joint Health Surveys Unit. *Health Survey for England* 2008: *Physical activity and fitness*. The Information Centre: Leeds, 2010.
- 8. Welsh Government. *Welsh Health Survey 2011*. Welsh Government: Cardiff, 2012.
- Bull FC, Armstrong TP, Dixon, T, Ham, S, Neiman A and Pratt M. V. Chapter 10 physical inactivity. In: Erzzati M. Lopz AD, Rogers A, Murray CJL, editors. Comparitive Quantification of Health Risks, Global and Regional Burden of Disease Attributable to Selected Major Risk Factors. Volume 1 ed. Switzerland: World Health Organization; 2004. Pp. 729-881.

- Tremblay MS, LeBlanc AG, Kho ME, Saunders TJ, Larouche R, Colley RC, Goldfield G and Gorber SC. Systematic review of sedentary behaviour and health indicators in school-aged children and youth. International Journal of Behavioral Nutrition and Physical Activity, 2011, 8:98
- 11. Pate RR, O'Neill JR and Lobelo F. The evolving definition of "sedentary". *Exerc Sport Sci Rev.* 2008; 36(4): 173-8.
- 12. Parkes A, Sweeting H and Wight D. *Growing Up in Scotland: Overweight, obesity and activity.* Edinburgh: Scottish Government, 2012.
- 13. Whitehead, M. The concept of physical literacy. In: Whitehead M, editor. Physical literacy throughout the lifecourse. Oxon: Routledge; 2010. P.11-12.
- 14. Nicholson, L 'Development of key themes for physical activity promotion for the early years, children and young people'. NHS Health Scotland, 2012.

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T: 01509 226421 F: 01509 226420

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Loughborough University

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