

What works in schools and colleges to increase physical activity?

A briefing for head teachers, college principals, staff working in education settings, directors of public health and wider partners

October 2015

Prepared by Public Health England, the Youth Sport Trust and the Association of Colleges Sport, and supported by the Department of Health; the Department for Transport; the Department for Culture, Media & Sport; and the Department for Education

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About Public Health England

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Overview

This briefing provides an overview from the evidence about what works in schools and colleges to increase levels of physical activity among children and young people.

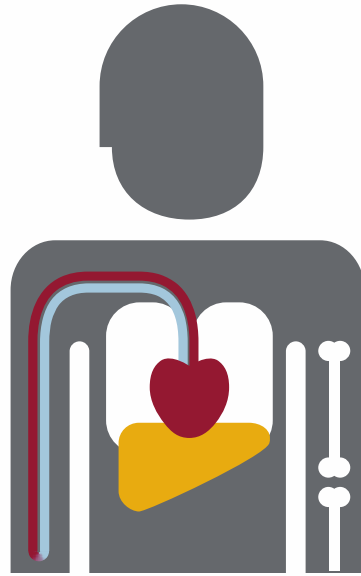
It aims to:

- summarise evidence of the link between physical activity and attainment
- describe the benefits for children and young people of participating in physical activity
- set out the Chief Medical Officer's guidelines for children and young people aged five to 18 and current levels of participation in physical activity
- outline the important contribution that schools and colleges can make
- identify eight key promising principles for practice
- illustrate how schools and colleges are putting these principles into practice
- signpost to organisations and sources of support that can help schools and colleges to translate the principles into practice
- reference the contribution physical activity can make to Ofsted inspection

Link between physical activity and attainment

- there is emerging evidence of an association between physical activity and attainment (*Chalkley et al, 2015; Singh et al, 2012*)
- there is evidence of an inverse relationship between time spent being sedentary at age 14 years and GCSE results by age 17 (*Corder et al, 2015*)
- there are studies that support a positive association between single bouts of exercise and attainment and those which point to a longer-term association between moderate to vigorous physical activity levels and attainment in some subjects (*Haapala et al, 2013; Booth et al, 2013*)
- a report undertaken by the Youth Sport Trust found that between 2007 and 2010 the proportion of students achieving 5 A*-Cs at Specialist Sports Schools improved by 7.8% compared to a national average of 4% (*Mongon et al, 2011*)

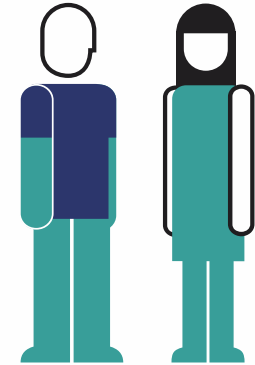
Benefits of physical activity



Enhanced cardio metabolic health; musculoskeletal health/muscular strength bone health and cardio respiratory fitness.



Enhanced mental wellbeing including positive self esteem and lower levels of anxiety and stress.

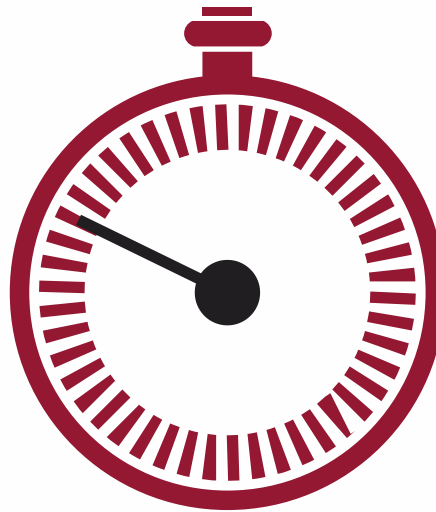


Improved confidence and peer acceptance.

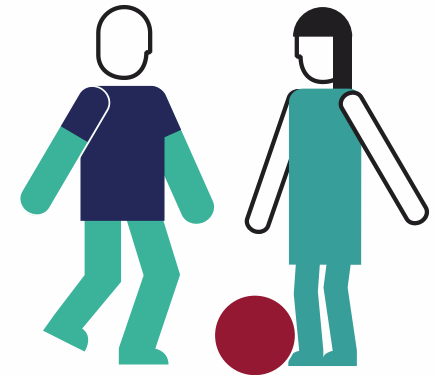
Emerging association with academic achievement improved concentration and attention.

Chalkley A, Milton K, Foster C (2015) Change4Life Evidence Review: Rapid evidence review on the effect of physical activity participation among children aged 5 – 11 years. London: Public Health England

Physical activity
guidelines for
children and
young people
aged 5-18



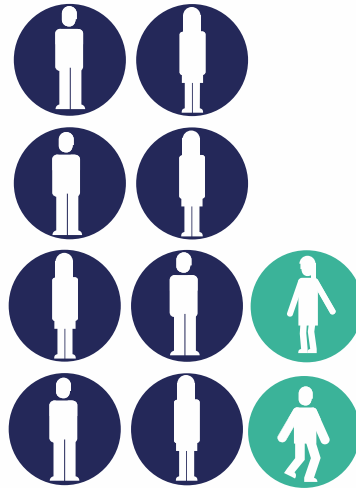
At least 60 minutes of moderate to vigorous intensity physical activity every day, incorporating muscle strengthening activities on at least three days a week.



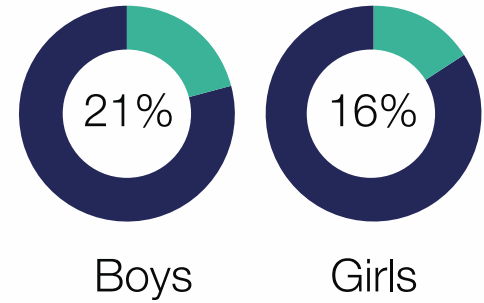
All children and young people should minimise the amount of time spent being sedentary for extended periods.

Department of Health (2011) Physical activity guidelines for children and young people (5-18 years)

Levels of physical activity among children and young people

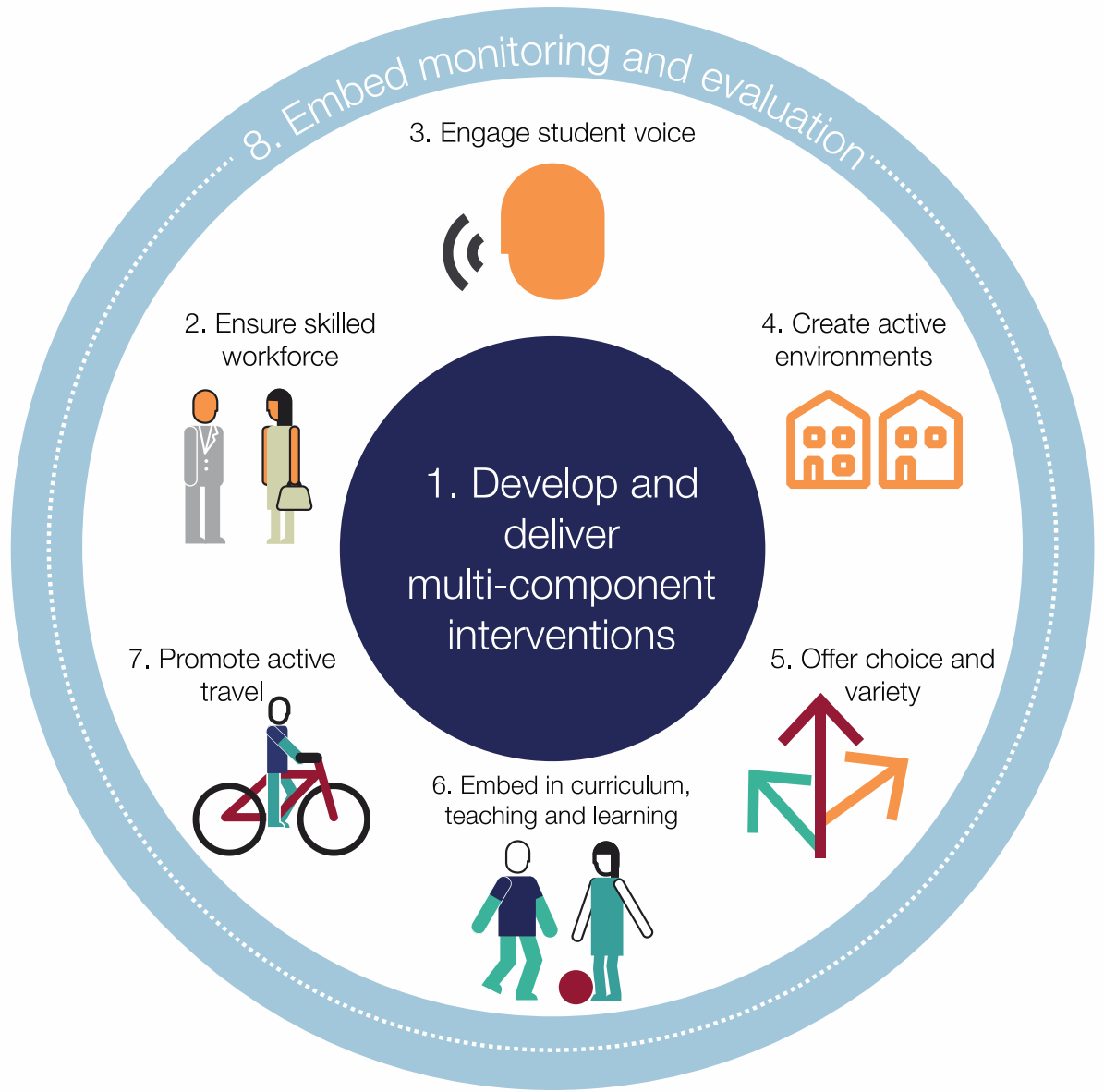


Around two in ten children aged 5-15 years meet the government recommendations for physical activity.



21% boys and 16% girls aged 5-15 years old meet the recommended guidelines.

Promising Principles



Contribution of schools and colleges

Active transport	Informal opportunities	Formal opportunities	High quality PE
Everyday activity: 60 minutes a day			2 hours a week
For example: park and stride/ cycling and scooters	Active play: equipment, resources and facilities Daily physical activity eg 10 minute shake-up Lunchtime casual sessions, gym	Play leaders and structured lunchtime play Out of hours clubs Competitive school/college sport Outdoor and adventurous active classrooms Collapsed timetable	Compulsory PE within the curriculum Full time or part time PE, sport, health and fitness courses
Informal can be parent led	Informal pupil/student led	Structured and planned and adult led	Curriculum formal and staff led
Travel plans	Enrichment and physical activity	Supervised clubs and participation sessions	Sport study programmes

Adapted with permission from Bath and North East Somerset School Sport Partnership

Quality of evidence underpinning the principles

5/5

Evidence that the intervention can be scaled up through multiple replication evaluations, future scenario analysis or fidelity evaluation.

4/5

Independent validation of the impact and ability to scale the intervention up. Endorsement through recognised standards and standardisation of delivery and processes and documented standardisation of delivery and processes.

3/5

Independent evidence (or evidence that has been peer reviewed) that demonstrates that the intervention is causing positive change in physical activity levels across a sufficiently large sample through the use of a control or comparison group.

2/5

Qualitative or quantitative data that demonstrates a positive change in physical activity levels among those involved. Used pre and post survey evaluation or regular interval surveying.

1/5

Logical description of impact. Used existing data and research from other sources.

(Informed by NESTA www.nesta.org.uk)

1. Develop and deliver multi-component interventions

3/5

Interventions that are multi-component or adopt a ‘whole of community (school/college) approach’ appear to be most effective.

Multi-component interventions are likely to include actions relating to:

- curricular learning (eg teaching about the importance of physical activity through PSHE and maximising opportunities to embed physical activity across the curriculum) and
- culture, ethos and environment (eg ensuring a supportive school or college culture and physical environment) and
- engagement of the wider community and families (for colleges, links to employers and placement providers are particularly important)

2. Ensure a skilled workforce

2/5

Having an appropriately trained, skilled and knowledgeable workforce who have the confidence and competence to offer high quality experiences of both physical education and physical activity across the school/college day can support the participation of children and young people in physical activity.

3. Engage student voice

2/5

Giving students a voice and enhancing their ownership of physical activity delivery to ensure that activities are appropriately tailored to their needs can support participation.

Encouraging young people to act as role models can have an aspirational impact on younger age groups.

4. Create active environments

3/5

2/5

Access to, and integration in the school/college day of, open space, forests, parks and playgrounds are positively associated with physical activity levels. Access to loose and fixed equipment, along with non-traditional play materials (for example, car tyres or milk crates) also promote physical activity among children and young people. (The sources of evidence underpinning this principle are of different levels of quality so two ratings have been assigned.)

5. Offer choice and variety

2/5

Offering a variety of physical activity opportunities, including free play, games and the fun elements of participation, as well as the more traditional sports or competitive activities, can help to encourage participation, particularly among inactive children and young people.

6. Embed in the curriculum, teaching and learning

The national curriculum aims to inspire all pupils to succeed and excel in competitive sport and other physically-demanding activities and to involve pupils in a range of activities that develops personal fitness and promotes an active, healthy lifestyle.

Increasing the amount of time spent being physically active during PE and other lessons can improve both physical activity and educational outcomes support greater physical activity, physical and emotional development.

7. Promote active travel

Interventions to encourage active travel can contribute to children and young people's physical activity levels. Travel plans, which include a range of active travel options, along with promoting cycling and walking to school have all been found to increase physical activity levels among children and young people. (The sources of evidence underpinning this principle are of different levels of quality so two ratings have been assigned.)

8. Embed monitoring and evaluation

3/5

Self monitoring, for example through use of pedometers deployed with personal goal setting, has been found to support an increase in physical activity; particularly among children and young people who are likely to be the least active.

Effective evaluation of physical activity interventions is a cross cutting principle that requires the identification of appropriate baseline information, interim outputs/milestones and appropriate outcomes linked to the physical activity interventions.

Signposting

See the accompanying briefing paper *What Works in Schools and Colleges to Increase Physical Activity?* for further information about a range of organisations and sources of support available to help schools and colleges translate the principles into practice.

PHE encourages you to circulate this paper to colleagues working in this sector.