

# Physical development approaches Low impact for very low cost, based on limited evidence.













Physical development approaches aim to improve young children's physical growth, skills and health. Activities in this area may be focused on a particular aspect of physical development, e.g. fine motor skills related to writing, or be more general, for instance, encouraging active outdoor play.

This summary focuses specifically on the relationship between physical development approaches and learning. However, it is important to note that in many cases early learning is not the primary focus of the approaches covered. Although in some cases physical development interventions are introduced with a specific learning aim (e.g. the use of number lines to promote 'number sense'), in many cases early learning outcomes are secondary to physical development itself, or to a variety of health outcomes.

#### How effective is it?

Existing studies suggest that physical development approaches are associated with a small improvement in cognitive outcomes, equivalent to approximately two additional months' progress.

However, though the overall picture is positive, the evidence base is not well-developed and findings are inconsistent. It is not possible to provide a clear account of the reasons why some physical development approaches are effective, and very few individual interventions have been evaluated to a high standard. In several cases, claims are made about the positive impact on learning of specific physical development approaches that are not supported by rigorous evaluation. There is some evidence that programmes that combine physical activity with strategies to promote self-regulation can improve executive function and have a positive impact on learning.

Evidence relating to the general positive impact of physical activity on cognitive outcomes is currently stronger than that related to specific programmes, and provides some indications that physical activity, including outdoor play, can support children's learning.

No high-quality evaluations have assessed the long-term impact of physical development approaches on learning.

#### How secure is the evidence?

The evidence base related to physical development approaches is currently limited. Two recent systematic reviews have been conducted, but the reviews did not identify high-quality evidence related to learning outcomes for young children.

No high quality studies appear to have been conducted in early years settings in England.

Given the weak evidence in this area, it is important to evaluate the impact of any new physical development approaches and it would be valuable for early years professionals to be cautious about the claims of new interventions that do not appear to have been evaluated.

## What are the costs?

Overall, the cost of introducing physical development approaches is estimated as very low. The provision of outdoor space and play equipment can be expensive, but these are not essential for physical activity and exercises, and costs are likely to be spread over a number of years.



### What should I consider?

Before you implement this strategy in your learning environment, consider the following:

- 1. Physical development approaches can have a range of positive benefits, but the existing evidence related to learning is currently limited. How will you evaluate the impact of new approaches?
- 2. Have you considered introducing approaches that are linked to other, more well-evidenced strategies such as self-regulation?
- 3. There is some evidence that children are likely to learn more effectively after physical activity. Are regular opportunities for active play and physical development integrated into the day?