

Editorial

Only the strong: Why we need more focus on strengthening and balance activities in physical activity

Jessica D. Kuehne¹, Michael G.T. Brannan²

¹Centre for Ageing Better, London, UK; ²Public Health England, UK

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Muscle and bone health, as well as the ability to balance, each contribute to the overall health and functionality of an individual. They also play an important role in enabling healthy ageing. On the other hand, low levels of strengthening can lead to a decline in muscle mass with age and a range of associated health issues, such as increased risk of falls, sarcopenia and other health issues.

As a result, muscle strengthening and balance activities are a key element of the UK Chief Medical Officers' (CMOs) physical activity guidelines for health, as outlined in *Start Active, Stay Active*¹.

The benefits of strength and balancing activities are well established. However, when it comes to the promotion of physical activity by the health sector, much greater emphasis is placed on the aerobic component of the guidelines than on muscle and bone strengthening and balance. As such, the full benefits of incorporating muscle and bone strengthening and balance elements into physical activity routines are often overlooked or forgotten by commissioners of physical activity programmes and services, by healthcare professionals prescribing physical activity², and by physical activity providers and exercise professionals themselves.

The impact of this is reflected in the data. The latest Health Survey for England data show that just 31% of men and 23% of women over the age of 16 meet both the aerobic and muscle strengthening guidelines compared to 66% of men and 58% women meeting just the aerobic guidelines. In those over the age of 65, these figures drop dramatically to just 13% of men and 10% of women meeting both the aerobic and muscle strengthening guidelines³.

This has consequences for both individuals and health and social care services. NICE guidance identifies low muscle strength and poor balance in later life as the most common preventable risk factors for falls⁴. In 2016/17, there were 210,000 falls-related emergency hospital admissions among people aged 65 and older in England⁵. Many people lose independence and the ability to carry out activities of daily living after a fall. Falls are the cause of 95% of all hip fractures⁶. Of those who suffer a hip fracture, only a minority will completely regain their previous abilities. For example, among patients followed up four months after having a hip fracture, just 10% reported they could move around freely

without the help of a walking aid⁷. It has been estimated that hip fractures cost the NHS over £1 billion per year⁸.

To address this public health issue, the Centre for Ageing Better, in partnership with Public Health England, funded the UK CMOs' Expert Group on Physical Activity to undertake an evidence review on muscle and bone strengthening and balance activities for health and wellbeing.

This work aims to improve understanding of the benefits of muscle and bone strengthening and balance at different stages of life and for specific health outcomes, including whether there are particular ages where muscle and bone strengthening and balance are most important. It sought to identify what types of physical activities are effective in developing strength and balance, including what activities are safe and efficacious for individuals with specific challenges such as osteoporosis, vertebral fractures, frailty and dementia. The review explored what the key barriers are to undertaking these activities and how they could be overcome. Finally, it explored measurement options for population level surveillance of muscle and bone strengthening and balance activities. The series of papers in this issue not only elucidate the key evidence in this area, they will be used as part of the larger evidence review process of this year's UK Physical Activity Guidelines Review.

Evidence and guidance on their own are not sufficient to effect change. Translating this evidence into practice, service provision and commissioning of physical activity programmes will require national and local leadership.

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Corresponding authors:

Jessica D. Kuehne, Centre for Ageing Better, Level 3, Angel Building, 407 St John St, London EC1V 4AD
E-mail: jess.kuehne@ageing-better.org.uk

Michael GT Brannan, Public Health England, Wellington House, 133-155 Waterloo Road, London, SE1 8UG
E-mail: Michael.brannan@phe.gov.uk

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Therefore, Public Health England and the Centre for Ageing Better are publishing a separate report with suggestions for action and implementation for the public, practitioners and policy makers. This review represents a first step in laying the foundations for embedding strengthening and balance activity into individuals' routine physical activity, not only in later years but throughout life.

- The Centre for Ageing Better is an independent charitable foundation, bringing about change for people in later life today and for future generations. Practical solutions, research about what works best, and people's own insight are all sources that they draw on to help make this change. Ageing Better share this information and support others to act on it, as well as trying out new approaches to improving later lives.

- 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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