

Top Tips for establishing strength and balance exercise programmes

1. Identify the older adults most in need in your local areas (consider using the Public Health England¹ (2021) Wider Impacts on COVID-19 on Health (WICH) monitoring tool).
2. To support sustainable strength and balance exercise programmes, calculate the health and social care savings that could be made in your local healthcare system by targeting deconditioning and restoring resilience (for example, consider using the Public Health England (2018) Return on Investment Tool for the Assessment of Falls Prevention Programmes for Older People Living in the Community⁹).
3. Work with local partners, using the information in this resource, to develop strong submissions for available government funding to build capacity for strength and balance programmes (for example Ageing Well Funding).
4. Support equity of access to strength and balance programmes by working in partnership, to ensure there is a range of evidence-based strength and balance activity programmes on offer, including home-based and group activities; and build capacity for programmes through integrated exercise pathways involving health care professionals and other accredited exercise professionals, so that older adults can access the right exercise programme at the right time which is tailored to their capabilities and extent of falls risk.
5. Work with local partners to develop exercise pathways which support ongoing physical activity participation and behaviour change, such that older adults are able to maintain the gains they have achieved in the programmes (for example, by connecting with their local Active Partnership <https://www.activepartnerships.org/active-partnerships>).

Act now to invest in integrated strength and balance exercise programmes to address the deconditioning impact of COVID-19 among older adults.

Guidance for setting up strength and balance exercise programmes

BUILD CAPACITY IN COMMUNITIES TO SUPPORT RECONDITIONING AND IMPROVEMENTS IN STRENGTH AND BALANCE

FOR COMMISSIONERS AND PROVIDERS

NFPCG

National Falls Prevention Coordination Group
Empowering local communities to prevent falls



Why read this guidance?

Physical inactivity has increased during the pandemic, from pre-existing high levels: 21.5% of 65-74 year olds were already inactive, rising to 34.4% of 75-84 year olds and 57.4% aged 85+¹. Increased levels of physical inactivity have been accompanied by reduced access to healthcare during the COVID-19 pandemic, both leading to poorer health outcomes for older adults. Investing in services and support for older adults to regain good health through physical activity would reduce healthcare costs. This guidance outlines the arguments for funding strength and balance programmes to address deconditioning.²

The cost of inactivity and falls

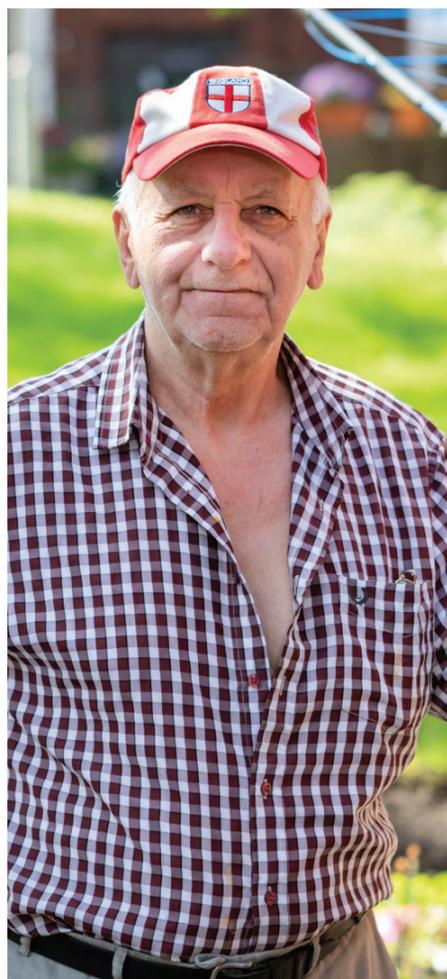
Reduced physical activity and sedentary behaviours are associated with reduced muscle mass affecting strength, mobility and balance. Very low daily step counts (less than 1,413 steps) can lead to rapidly reduced muscle mass, limited muscle growth and impaired insulin resistance in older adults in as little as two weeks,³ with the most deprived populations experiencing the most impact.⁴ Older adults, particularly those with multiple long-term conditions, have been adversely affected by the restrictions imposed during the pandemic, and have often been more reluctant to return to physical activities that they engaged in before.⁵ These limits on activities have placed older adults at even greater risk of increasing sedentary behaviour and deconditioning.

The cost of falls to the NHS has been estimated at more than £2.3 billion per year,⁶ any increase in the number of falls, as a result of deconditioning, will have significant financial implications in addition to the impacts on older adults' lives (pain, injury, distress, loss of confidence, isolation).

Analysis conducted by Public Health England, using data from the first three months of national lockdown, produced projections for the impact of COVID-19 on the numbers of older adults experiencing a fall. Whilst these estimates are likely to be conservative, given the subsequent periods of lockdown and restrictions, results show an increase of 110,000 more individuals who fall at least once in a year in the older adult population, equating to an additional cost to the health and social care system of £211 million (incurred over a two and half year period). Modelling also explored potential future scenarios to mitigate these impacts. Increasing strength and balance activity by 10% in all older adults, compared to the level observed during the pandemic could reduce the number of falls by 9,339 for males and 9,506 for females.

How can deconditioning be addressed?

As there are many more older adults with very low levels of physical activity and at risk of falls, there needs to be more capacity to deliver strength and balance training, targeted to the right people at the right level, including those populations seldom heard and hardly reached. More broadly, strength and balance



activities should be considered as a way of enabling older adults to safely resume activities and exercise that they may have stopped during the pandemic. We know that fun and enjoyment are important factors in motivating older adults to engage in physical activities, so promoting the social aspects of activity with others could address mental as well as physical health.

Strength and balance exercise programmes

Evidence-based strength and balance exercise interventions can prevent falls, resulting in improved health outcomes and independence for older adults, and reduced demand for health and care services. To be effective, interventions should consist of a programme of one-to-one or group balance and functional training exercises, plus resistance exercises delivered by an appropriately qualified instructor. Programmes should be a minimum of 50 hours with a weekly 'dose' of at least 2 to 3 hours⁷. There are different programmes for people with different levels of capacity, motivation and confidence, and a person-centred pre-assessment needs to take place to ensure that participants are on the right programme. The exercises should be progressive in terms of intensity and challenge, and individualised. At the end of the programme participants should be assessed, offered and enabled to take up a range of follow-on classes and physical activity opportunities that involve continued strength and balance activities. These should suit their needs and abilities, include strength and balance, and support their progression⁸.

To maintain the gains achieved through strength and balance programmes, local areas need to be able to offer community-based physical activities for older adults to engage in longer-term. Working with local authorities, leisure centres and local activity providers is important - to ensure there are appropriate and varied opportunities for older adults to be active, whatever their level of physical activity and motivation. Strength and balance exercise programmes work best when they are part of a wider physical activity offer and pathway.

For guidance on how to design, deliver and promote strength and balance exercise programmes, as part of this wider offer, as well as how to conduct audits to support quality and effectiveness, please refer to:

[Strength and balance quality markers. Supporting improvement through audit. Produced by Public Health England with the National Falls Prevention Coordination Group member organisations. July 2019.](#)

[Raising the Bar on Strength and Balance. Centre for Ageing Better, 2019](#)

References

¹ Public Health England. 'Productive Healthy Ageing Profile', 2021

² Deconditioning is the syndrome of physical, psychological and functional decline that occurs as a result of prolonged inactivity and associated loss of muscle strength.

³ Breen L et al. 'Two weeks of reduced activity decreases leg lean mass and induces "anabolic resistance" of myofibrillar protein synthesis in healthy elderly'. The Journal of Clinical Endocrinology and Metabolism 2013: volume 98, issue 6, pages 2604-2612.

⁴ Public Health England. 'Wider impacts of COVID-19 on physical activity, deconditioning and falls in older adults', 2021

⁵ Age UK Research. Impact of Covid-19 on older people's mental and physical health: one year on. 2021

⁶ National Institute for Health and Care Excellence. 'Falls in older people: Assessing risk and prevention', 2013

⁷ Sherrington C, Michaleff ZA, Fairhall N, et al. Exercise to prevent falls in older adults: an updated systematic review and meta-analysis. Br J Sports Med 2017;51:1750-1758.

⁸ Centre for Ageing Better. Raising the bar on strength and balance: the importance of community-based provision. 2019.

⁹ Public Health England. Return on Investment Tool for the Assessment of Falls Prevention Programmes for Older People Living in the Community. 2018.