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Strength



And Balance



Falls History



Environment



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National Prudent Healthcare Falls Prevention Task Force (Wales) and Ageing Well in Wales

Guidance for Recommending
Exercise for Older People
to Reduce Falls Risks



Purpose

This guidance is intended for anyone who works with or supports older people living in the local community, as these people are most likely to gain from strength and balance training (NICE 2013).

It includes information that will help to:-

- understand why physical activity is important for older people at risk of falling
- understand why people may be at risk of a fall
- differentiate between falls risk reduction and falls prevention interventions
- identify appropriate physical activity/exercise opportunities for older people
- identify the research based exercise programmes for falls prevention

Why is physical activity and exercise important for older people?

As people get older, muscles start to deteriorate as a natural part of ageing. Weakened muscles are not as strong to cope with everyday tasks such as getting up from a chair or walking, and balance can be affected. Reduced strength and balance can also increase the risk of falls, particularly for people aged 65 and over.

The Chief Medical Officers' guidelines for older adults age 65+ recommend that daily activity is preferable, and over a week activity should add up to at least 150 minutes of moderate intensity activity (activity which causes you to get warmer, breathe harder and heart beat faster, but still being able to carry on a conversation). Extended periods of sedentary behaviour should be kept to a minimum. Strength and balance activity should be undertaken at least twice a week.



Whether someone is considered at high risk of falls or not, they can benefit from taking part in some form of strength and balance activity. However, if someone is at risk, it is recommended that advice is sought from a health or exercise professional such as a GP, Physiotherapist, Occupational Therapist or falls prevention qualified exercise instructor (Otago or Postural Stability Instructor) prior to undertaking exercise.

What are the indicators for having a high falls risk?

It is important before setting up or making referrals to any physical activity or exercise programme to consider whether a person has a risk of falling. All people aged 65 and over may be at risk of a fall but especially if they have **one or more** of the following:

- Have had an unexplained trip or fall in the last 12 months
- Have poor balance - or need to use a walking aid or to hold onto things to keep their balance
- Have difficulty with walking or getting up from a knee high chair
- Are taking 4 or more prescribed medications regularly
- Are affected by Stroke, Parkinson's Disease or cognitive impairment
- Have dizzy spells, light headedness, palpitations or low blood pressure
- Are worried about falling and this prevents them from doing activities they would normally enjoy
- Have a visual impairment

A basic assessment can be done using a resource such as the Falls Risk Assessment Tool (FRAT) to quickly identify if a person has risks, and if they do, a multi-factorial assessment could explore these in more detail and put actions in place. Tools to assess risk and referral pathways to falls specialists will vary according to local protocols.

Any medical concerns should be referred to a health professional such as a GP, Physiotherapist or Occupational Therapist.



Falls prevention or falls risk reduction?

It is important to distinguish between falls *prevention* and falls *risk reduction* interventions. Many physical activity and exercise activities can reduce the *risk* of falling, but not all have an evidence base around *preventing* falls. Any strength and balance activity can improve people's ability to remain mobile, independent, improve wellbeing, and enable maintenance of their strength and balance into later life but the activity is not necessarily specifically designed to prevent falls.

For a person at high risk of a fall, having already experienced one or more over a 12 month period, secondary prevention must start with evidence based structured exercise, and once people have been through a robust programme they can then transition to a programme which helps them maintain their strength and balance and reduce falls risks. This is undertaken on the clinical judgement of a falls prevention qualified exercise instructor and/or a falls professional.

Strength and balance activities to *reduce falls risks*

There are many opportunities available for older people to take part in physical activity and exercise which can help to improve and maintain their strength and balance and benefit their general wellbeing. These can include Extend classes, Strength and Balance classes, Tai Chi, Nordic walking, Yoga, Dance, Bowling and Age Cymru's Low Impact Functional Training (LIFT) classes, but options available will differ in local areas. To find out what is available in your area, see www.dewis.wales

Extend: Recreational movement to music for the over 60s and less able of any age. Seated and standing exercise in groups.

Strength, balance and mobility: Components of fitness that require application of exercise science/guidelines in order to elicit improvement. Training for mobility strength can be performed in seated or standing but to improve standing balance, exercise must be performed in standing.

Tai Chi: a Chinese martial art which incorporates movements that improve strength and balance.

Nordic walking: a total body version of walking undertaken using specially designed walking poles.

Yoga: a form of exercise incorporating strength, flexibility and breathing techniques to boost wellbeing.

Age Cymru's Low Impact Functional Training (LIFT): activities and games designed to improve health and wellbeing and improve day to day functionality. Seated and standing exercise in groups.



Strength and Balance Exercise programmes that are researched and evidence based for Falls Prevention:

Some strength and balance exercise programmes have been shown through extensive research to be effective for *prevention* of falls, particularly for those people who have a history of falls or who have balance or gait deficits.

To be effective in falls prevention, exercise programmes should include these key elements:

- **Be delivered by instructors qualified** to work with people at risk of falling, such as Level 4 Postural Stability instructors (PSI), and Level 2 Otago Leaders (requiring partnership working with PSIs and health professionals)
- Be undertaken **at least for at least 3 hours per week** (this can be a combination of group exercise class participation and home based exercise)
- **Include an assessment** which is carried out by an appropriately qualified, experienced instructor/health professional before commencing activity
- **Be delivered with fidelity** (true to the original research) ie individually tailored and include clear progression
- Comprise a **minimum of 50 hours or more, over a period of at least 6 months**
- Involve **challenging and progressive balance and resistance training**, and exercise in a standing position
- Be **monitored** by an appropriately trained professional

Two of the research based programmes which have evidence of preventing falls, and have also been shown to be cost-effective are:-

- **The Falls Management Exercise (FaME) programme** - led by Postural Stability Instructors. FaME is evidenced to prevent both primary and secondary falls and is appropriate for all older people, including those at high risk. It also increases physical activity levels, improves confidence and reduces fear of falling.
- **Otago Exercise Programme (OEP)** - led by trained OEP leaders. OEP has a strong evidence base for secondary falls prevention for people at high risk of falls when delivered as a home based programme of pre-set exercises with progression guidance. OEP can be delivered in groups in community settings as a primary prevention programme which aims to improve strength and balance as a falls risk reduction intervention.



Strength and balance activity recommendations according to falls risk

This diagram provides a guide to recommending appropriate physical activity or exercise for older people according to their falls risk level.

<p>People who are independently active older adults who have no apparent (or very low) falls risks. Guidelines for physical activity and muscle and bone strengthening and balance activity should be followed. At this level this is more about increasing and maintaining physical activity and strength and balance exercise than specific falls prevention intervention.</p> <p><i>This group would not generally need specialist advice from a health professional prior to exercising.</i></p>	<p>People who may be moving into a transition phase where they could be developing some falls risks. Activity should focus on reducing risk of falls.</p> <p><i>Advice is needed from a health or exercise professional prior to exercising.</i></p>	<p>Frailer older people with a high risk of falls. Any exercise programme with this group should be evidence based falls prevention interventions.</p> <p><i>Advice is needed from a health or exercise professional prior to exercising.</i></p>
<p>Advice for independently active older adults</p> <p>Stay active for 30 minutes or more on at least five days a week.</p> <p>Do muscle strengthening and balance exercises twice a week or more.. Make the most of life by getting out, meeting people and doing things you enjoy. Try new hobbies or maybe volunteer and help others.</p>	<p>Advice for older individuals at risk of falling (e.g. moving from good health to poor health; being fit to unfit; independence to dependence)</p> <p>Stay active for 30 minutes or more on at least five days a week if possible.</p> <p>Do exercises twice a week or more that are known to help maintain strength & balance, such as those within this guide from the Chartered Society of Physiotherapists: www.csp.org.uk/publications/get-and-go-guide-supplement-six-exercises-staying-steady A multi-factorial risk assessment may be carried out by a health or exercise professional. Ask about home adaptations or equipment that can assist.</p>	<p>Advice for older individuals who have had recurrent falls over 12 months and/or have a high risk of falling</p> <p>Advice should be provided from a health professional e.g. a physiotherapist, occupational therapist or falls specialist before exercising. Multifactorial assessment of risks should be carried out. Exercise should be evidence based for falls prevention and include progressive resistance training, balance activity and some aerobic endurance over at least 6 months.</p>
<p>Physical activity for older adults with low or no risk of falling</p>	<p>Physical activity for older adults at some risk of falling</p>	<p>Physical activity for older adults who have had a fall &/or have a high risk of falling</p>
<p>Recommended activities</p> <p>Physical activity and exercise aimed at people age 60+ and/or includes element of strength and balance training to maintain active daily living, e.g. Extend, Tai Chi, LIFT (Low Impact Functional Training), community strength & balance classes, yoga, dance, FaME (Falls Management Exercise programme).</p>	<p>Recommended activities</p> <p>Supervised structured exercise is recommended for this group, e.g. National Exercise Referral Scheme (NERS), Postural Stability Instructor led FaME (Falls Management Exercise programme), Otago Exercise Programme community group classes, community strength and balance classes if suitable for individual needs, and Tai Chi.</p>	<p>Recommended activities</p> <p>Structured, targeted, health or specialist exercise professional led falls prevention programme following a multifactorial risk assessment, e.g. Otago Exercise Programme (can be group or home based) 1 to 1, Individual Strength & Balance programmes, FaME (Falls Management Exercise programme)</p>

Checklist – Considerations for Commissioners/ Service Planners

- ✓ Be clear about whether the organisation is commissioning/planning a primary prevention intervention (aimed at addressing risk factors for falls but not specifically evidenced based to reduce falls themselves) or a secondary prevention (evidence based falls prevention programmes, which are of sufficient duration and include assessment and evaluation mechanisms)
- ✓ Ensure that the delivery of falls prevention programmes is part of an agreed referral pathway across health, social care and leisure departments and organisations.
- ✓ Ensure that anyone providing physical activity/ falls prevention specific exercise opportunities for older people is appropriately trained and qualified to deliver evidence based exercise (for example Register of Exercise Professionals Level 4 PSI qualification, Level 2 Otago Leaders Award – working in partnership qualification) to deliver safe, effective and enjoyable sessions
- ✓ Be aware that many older people do not want to be categorised as ‘fallers’ so consider this in the marketing of strength and balance programmes
- ✓ Ideally ensure that falls prevention programmes are part of a broader exercise continuum for all older people, and people are enabled to transition from secondary to primary prevention programmes to maintain and continue to improve strength and balance
- ✓ Make sure that physical activity/exercise programmes are targeted to specific needs and functional abilities of older/frailer older adults on an individual level
- ✓ Ensure that falls prevention structured exercise programmes are delivered as part of a multifactorial intervention, overseen by specialist health professionals such as a GP or Physiotherapist
- ✓ If commissioning private/self-employed exercise instructors for community based group classes ensure that they have appropriate insurance, are able to accept suitably assessed referrals, have robust risk assessment procedures and can measure outcomes. Quality assurance of evidence based programmes needs to be built into planning to ensure fidelity to the original researched programmes



Contacts/further information

Ageing Well in Wales

<http://www.ageingwellinwales.com/en/themes/falls-prevention>

Chartered Society of Physiotherapists 6 Strength & Balance exercises guide

<https://www.csp.org.uk/publications/get-and-go-guide-supplement-six-exercises-staying-steady>

Chartered Society of Physiotherapists Get Up and Go guide to staying steady

<https://www.csp.org.uk/publications/get-and-go-guide-staying-steady>

Steady On Stay Safe campaign falls prevention resources

<http://www.ageingwellinwales.com/en/resource-hub/fp-resources>

Training Providers for Older Adults Physical Activity and Exercise Programmes Later Life Training

www.laterlifetraining.co.uk

This document has been developed and guided by the following evidence base/guidance:

Department of Health (2011), *Start Active, Stay Active – a report on physical activity for health from the four home countries Chief Medical Officers*. London.

Gillespie LD et al (2012) *Interventions for preventing falls in older people living in the community*. Cochrane Database of Systematic Reviews. 2012;9:CD007146.

Later Life Training (2017) *Evidence based OTAGO and FaME Delivery: Implementation guidance for commissioners, public health officers and leisure centre managers*. LLT.

National Institute of Clinical Excellence (2013) *Falls in older people: assessing risk and prevention*. NICE clinical guideline 161. London.

Public Health England (2017) *Falls and fracture consensus statement: supporting commissioning for prevention*. Public Health England. London

Public Health England (2018) *A structured literature review to identify cost-effective interventions to prevent falls in older people living in the community*. York Health Economic Consortium. London.

Public Health England and Centre for Ageing Better (2018) *Muscle and bone strengthening and balance activities for general health benefits in adults and older adults*. Rapid evidence review funded by Centre for Ageing Better.

Sherrington C, et al (2017) *Exercise to prevent falls in older adults: an updated systematic review and meta-analysis*. BrJ Sports Med; 51:1749-1757

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