

World Falls Guidelines - Preventing and managing falls: Ageing actively and successfully



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What I will cover:

- Falls and frailty – individuals, health and social care
- Effect of Covid-19 social restrictions
- World Falls Guidelines
- Effective interventions
- Call to action

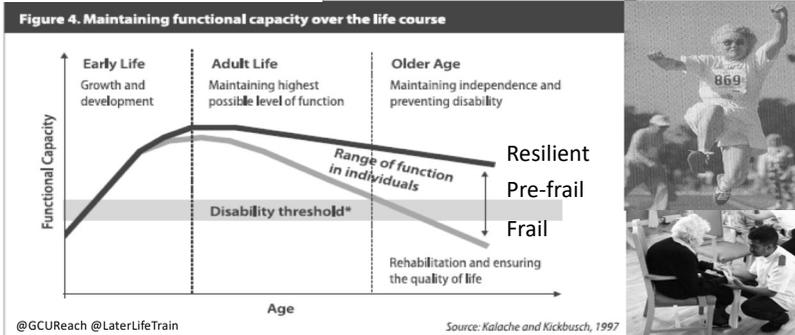


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Successful ageing

Figure 4. Maintaining functional capacity over the life course



©GCUReach @LaterLifeTrain Source: Kalache and Kickbusch, 1997

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Strength & Balance Activity across the lifecycle



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Frailty & Falls

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    graph TD
      A[Frailty is a distinctive health state related to the ageing process in which multiple body systems gradually lose their in-built reserves] --> B[Around 10% of those aged > 65 years have frailty, rising to up to 50% of > 85s]
      B --> C[The frailty state for an individual is not static; it can be made better and worse]
      A --> D[Falls are a symptom of frailty]
      D --> E[Not all fallers are frail]
      E --> F[Not all those who are frail fall]
  
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Frailty is a distinctive health state related to the ageing process in which multiple body systems gradually lose their in-built reserves

Around 10% of those aged > 65 years have frailty, rising to up to 50% of > 85s

The frailty state for an individual is not static; it can be made better and worse

Falls are a symptom of frailty

Not all fallers are frail

Not all those who are frail fall

<https://www.bgs.org.uk/resources/introduction-to-frailty>
Han et al. Age Ageing 2019; 48:665-671

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Costs of falls

MEDICAL COSTS

Costs (2010/2011):

- Cost per person falling £1720
- For those needing medical assistance £8600
- Hip fracture admission £39,490
- In total falls and fractures cost over £470 million a year, with the majority of the costs (45%) being for long term care.

Craig et al. Scott Med J. 2013

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Falls: The stats

- Falls are 3x more common in care home residents than community dwelling older people
- 40% of admissions into hospital from care homes are due to falls
- Half of these led to hospitalization (mean LoS 32 days)
- 71% of those receiving care at home had ≥ 1 fall in past 6 months

Laing W, Report 2017; Markle-Reid. CIA 2010; Care Inspectorate 2016; Oliver D, Rev Clin Gerontol 2007

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Falls: Impact

- Cause pain, distress, injury, lost confidence/independence, depression, fear of falling and avoidance of physical activity
- Ambulance call outs to fallers > £350 million/year
- 1 in 3 ambulance calls for a fall are not conveyed to hospital (just picked up off the floor)
 - Current waiting time for older people who have fallen is 8-12 hours
- Long lies on the floor lead to:
 - Fear of falling, anxiety and avoidance of activities perceived to lead to a fall
 - Death

NICE CG161 Falls; Taking Care 2023

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Effect of pandemic on activity behaviour

- March 2020 'Stay at home order' issued by Governments
- Ongoing social and activity restrictions for >18 months
- Deconditioning & increased frailty (reduced access to rehab)
- Modelling on reduced activity in first lockdown (3 months) period in England predicted >250,000 more falls in 110,000 people, costing £211 million over next 2.5 years

sedentary behaviour

43% to 33% irrespective of health condition, age, deprivation or pre-pandemic activity levels

Proportion of older adults (aged 65 years and older) meeting physical activity guidelines over time (red vertical line indicates the introduction of the first UK lockdown)

Elliot et al. BMC Public Health 2022
De Biase, Cook, Skelton, Witham, Ten Have. Age Ageing 2020; Public Health England, Covid impact on falls, 2021; Christensen et al. PLOS One 2022; Hoffman et al. JAGS 2022

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Be active
at least 150 minutes moderate intensity per week
OR
at least 75 minutes vigorous intensity per week

Build strength
on at least 2 days a week

Minimise sedentary time
Break up periods of inactivity

For older adults, to reduce the chance of falls and falls
Improve balance
2 days a week

Proportion meeting both the aerobic and muscle-strengthening guidelines, by age and sex

Age Group	Men (%)	Women (%)
16-24	~45	~35
25-34	~40	~30
35-44	~35	~25
45-54	~30	~20
55-64	~25	~15
65-74	~20	~10
75+	~15	~5

Legend: Men (black), Women (grey)

Annotations: < 25%, < 15%, < 7%

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World guidelines for falls prevention and management for older adults

NO STATEMENTS ON AGE ONLY ON 'RISK'

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GUIDELINE
World guidelines for falls prevention and management for older adults: a global initiative

HIGH RISK

- Past fall with injury
- Multiple falls (≥2 falls) in last yr
- Inability to get up after the fall without help
- Frail

Text of the algorithm:
- Blue = Entry point
- Yellow = Assessment
- Red = at risk
- Green = low risk

Montero-Odasso et al. Age Ageing 2022

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FINDING THE FALLERS

- Clinicians should routinely ask about falls in their interactions with older adults
 - Ask 3 key Qs
 - Have they experienced one or more falls in last 12 months?
 - Frequency, characteristics, context, severity and consequences, long-lies?
 - If they have experienced dizziness, loss of consciousness or any disturbance of gait and balance
 - If they experience any concerns about falling causing limitation of usual activities
 - If they say yes to any of these, offer a gait and balance assessment for differentiating intermediate and high risk from low risk

Montero-Odasso et al. Age Ageing 2022

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WORLD FALLS GUIDELINES – PA/exercise

- Older adults at low risk for falls
 - Should be offered education about falls prevention and exercise for general health and/or fall prevention if interested
 - Reinforce physical activity (aim to meet PA Guidelines), lifestyle habits and nutrition (incl. Vit D)
- Older adults at intermediate risk for falls
 - Should be offered targeted exercise in order to **improve balance and muscle strength**, and reduce their fall risk
- Older adults at high risk for falls
 - Should be offered a multifactorial falls risk assessment to inform individualised tailored evidence-based interventions to reduce falls



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When reduced falls is the outcome....

You wouldn't give a cancer patient only half the dose of chemotherapy.....

Or give them a different drug that was not known to work.....

Treat falls prevention 'treatment' like any other effective rehabilitation pathway

- Effective programme for outcome
- Effective dose / regularity
- Effects discontinue if stop
- Specialist exercise instructors/ physiotherapists




Sherrington Cet al. Cochrane Database of Systematic Reviews 2019, plus update for Global Falls Guidelines 2021

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What works best?

- Functional balance and strength
 - Highly challenging + progressive
- Tai Chi
- Frequency 3 x per week (for ≥ 2 hours total)
- AT LEAST 12 WEEKS (Dose ≥ 50 hours) longer is better

➢ These types of exercise also reduce:

- fear of falling
- Sarcopenia & frailty

➢ **No evidence** to support walking, dance, yoga, pilates seated exercise or strength training alone



EFFECTS STOP WHEN DISCONTINUE

Sherrington et al., 2008, 2016; 2019; Kendrick et al. 2014; Walston et al. 2018; Silva et al. 2017; Lee et al.; Beaudart et al. 2018

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Appropriately trained professionals



- Exercise programmes should be delivered by appropriately trained professionals who can adapt exercises appropriately to functional status and co-morbidities. These professionals could be physiotherapists, exercise physiologists or kinesiologists, trained exercise instructors or other allied health professionals. We acknowledge that this will be difficult in some settings but note that the vast majority of interventions found to be effective in trials used trained providers [137, 141].
- Benefits of exercise are lost on cessation so opportunities to continue with appropriate activity at the end of the programme are important. If individuals withdraw due to concurrent health issues or caring duties, they should be encouraged to return and programmes should be modified to ensure that the difficulty level and dose are appropriate [137, 141].

<https://agile.csp.org.uk/content/referrals>
Montero-Odasso et al. Age Ageing 2022

A standardised 'Referral Form' for transfer of assessment and treatment information from the physiotherapist to the exercise professionals trained in Otago or FaME - To continue to build on their exercise journey for better gains

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Falls programmes - UK

FaME Falls Management Exercise (6mth)

- reduces falls rate by between 26-54% (depending on population and duration)
- Increases habitual physical activity (105-167 minutes per week by end of programme)
- Effective for both intermediate and high-risk older adults

Otago Exercise Programme (1 yr)

- Reduces falls rate by between 12-48% (depending on population and duration)
- Effective for both intermediate and high-risk older adults

Lliffe et al. 2015 BJGP; Skelton et al. Age Ageing; Orton et al. Age Ageing 2021; Campbell et al. BMI 2001; Bjerk et al. Age Ageing 2019

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Examples of successful improvement programmes

- Managing falls and fractures in care homes for older people (Care inspectorate)
- My active Care Plan (NHS Lanarkshire)
- 'Care...about physical activity' (Care Inspectorate)
 - Proportion who did not need help to rise from a chair decreased by 12%
 - 80 mins a day more movement at 20 weeks
 - Decrease in contact with medical services due to falls & total number of medical service contacts
 - Increase in mobility & happiness



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Key messages

- We can't prevent all falls, but we can prevent some
- Think about:
 - Training (all who work with older people)
 - Encouraging physical activity
 - Referral routes for those at high risk
- Right programme, right person, right time



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