



Interpreting the UK physical activity guidelines for older adults (65+)

Guidance for those who work with frailer, older people

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Information for stakeholders, including physical activity, health and social care professionals, residential setting and care home managers, activity co-ordinators, physiotherapists and occupational therapists.

This is one of a series of three documents designed to assist those who work with frailer older people to interpret the Chief Medical Officers' (CMO) guidelines on physical activity for older adults (65+).

This resource was written and produced by the British Heart Foundation National Centre for Physical Activity and Health. It was last updated July 2012.

Key term - older adults

In this document, the term older adult is used to describe people over the age of 65 years.

Key term - frailer, older people

Is used to describe those who are identified as being frail or have very low physical or cognitive function, perhaps as a result of chronic disease such as arthritis, dementia or advanced old age itself. Many frailer, older people will be in supported living settings and residential care.

Achieving the physical activity guidelines for older adults can play an important part in assisting frailer, older people to maintain their health, wellbeing, independence and social participation in later life.

The UK Chief Medical Officers' guidelines for older adults

The introduction of the UK physical activity guidelines for older adults in 2011 follows the lead of other international countries. They are based on evidence from research and provide information on how much physical activity is required to achieve health and other benefits.

What are the UK physical activity guidelines for older adults?

1. Older adults who participate in any amount of physical activity gain some health benefits, including maintenance of good physical and cognitive function. Some physical activity is better than none, and more physical activity provides greater health benefits.
2. Older adults should aim to be active daily. Over a week, activity should add up to at least 150 minutes (2½ hours) of moderate intensity activity in bouts of 10 minutes or more - one way to approach this is to do 30 minutes on at least 5 days a week.
3. For those who are already regularly active at moderate intensity, comparable benefits can be achieved through 75 minutes of vigorous intensity activity spread across the week or a combination of moderate and vigorous activity.
4. Older adults should also undertake physical activity to improve muscle strength on at least two days a week.
5. Older adults at risk of falls should incorporate physical activity to improve balance and co-ordination on at least two days a week.
6. All older adults should minimise the amount of time spent being sedentary (sitting) for extended periods.

A full copy of the Chief Medical Officers' Report *Start Active, Stay Active* (2011) is available to download at www.ssehsactive.org.uk/guidelines

How do the guidelines reflect the differences among the older population?

These guidelines are relevant to all older adults, but it is not appropriate to consider all older adults as a homogeneous population. With an age range of 40 years or more there is significant diversity, and chronological age is not always helpful when describing differences in health, physical function and disease status among older adults. Many people in their late 80s do as well as those in their 60s, yet some in their early 70s have a functional status more expected of a 90 year old.

Regardless of age, ability or previous activity patterns, these guidelines can be applied to all older adults. It is recommended though that they are adjusted for each individual according to their needs and abilities. To assist in clarifying how the CMO guidelines should be applied, three groups of older adults have been identified, each with differing functional status and therefore different physical activity needs. They can be described as:

1. **The *actives*** - those who are already active, either through daily walking, an active job and/or engaging in regular recreational or sporting activity. This group may benefit from increasing their general activity or introducing an additional activity to improve particular aspects of fitness or function, as well as sustaining their current activity levels.
2. **Those *in transition*** - those whose physical function is declining due to low levels of activity, too much sedentary time, who may have lost muscle strength and balance, and/or are overweight but otherwise remain reasonably healthy. National data indicate that this makes up the largest proportion of older adults and that they have a great deal to gain in terms of reversing loss of function and preventing disease.
3. **Frailer, older people** - those who are frail or have very low physical or cognitive function perhaps as a result of chronic disease such as arthritis, dementia, or very old age itself. This group may require a therapeutic approach, eg, falls prevention programmes, and many will be in residential care.



How to use the physical activity guidelines

The guidelines are issued by the four Chief Medical Officers of England, Scotland, Wales and Northern Ireland and draw on global evidence for the health benefits of regular physical activity throughout the life course. They take the form of evidence-based summary statements and are the basis for the development of a population based approach to physical activity.

These guidelines are written for the professional audience who work with frailer, older people and are not intended to be used as communication messages, eg, for motivation, promotion and marketing purposes. They will need to be interpreted differently for direct communications with frailer, older people. In general, the CMO physical activity guidelines and this advice should be used to:

- inform the professional development and training of those working with frailer, older people
- form the basis of any advice given to frailer, older people within motivational settings, eg, by activity co-ordinators, physical activity leaders, physiotherapists and occupational therapists, exercise class instructors and residential and social care staff
- underpin the design and implementation of physical activity programmes
- provide a focus for national and local campaigns designed to target older adults, once translated into appropriate messages
- inform educational materials (booklets, leaflets) and other forms of written advice and guidance for older adults
- inform the marketing and promotion of local opportunities and programmes for frailer, older people.

Frailer, older people

Frailty is a state of vulnerability and arises from multiple factors. Whilst it is a condition brought about by a combination of old age and disease, physical inactivity is also known to be a significant contributing factor. Many frailer, older people will have multiple medical conditions, such as a combination of arthritis, diabetes, cardiovascular disease and dementia, and have very little strength and a fear of falls.

Whilst the majority of older adults have poor levels of physical function and are overweight/obese, this is not always the case in those classified as frailer, older people. Many in this population will be malnourished and have sarcopenic obesity (insufficient strength to support their weight).

Although many frailer, older people live in residential care and nursing settings, others continue to live in their own homes. To do so, they are supported by a range of services which provide assistance with daily living and help sustain independence.



Why do we need physical activity guidelines for frailer, older people?

Physical activity is important for frailer, older people

Physical activity declines and sedentary behaviour increases with age. Physical function, mobility and the ability to perform activities of daily living also declines with age. There is strong evidence regular physical activity can assist in reversing the age-related decline in physical and psychological function and assist in maintaining independent living and mobility.

Benefits of physical activity that can be achieved in later life include:

- good physical and psychological health and wellbeing
- maintaining cognitive function
- reaching/maintaining a healthy weight (combined with a reduction in calorie intake through dietary restriction)



- preserving physical function, mobility and independence
- maintaining social contacts and remaining engaged with the local community
- engaging in opportunities for new learning and experiences
- maintaining higher levels of energy and vitality to enjoy life
- improvements in quality and quantity of sleep
- lower levels of anxiety and depression, improved mood and self esteem.

Among the frailest of older adults, physical activity and movement that promote circulation will assist in reducing the complications of immobility including:

- deep vein thrombosis (a blood clot in one of the deep veins - usually in the calf or thigh)
- gravitational oedema (swelling of the feet and lower legs caused by accumulation of fluid)
- contractures (thickening of the joint tissues leading to deformity)
- pressure sores
- faecal impaction (severe constipation).

One of the major risks of daily living associated with this age group is the risk of falls. There is strong evidence to support the benefits of specific, targeted and progressive exercise programmes to help reduce this risk.

More detailed information on the benefits of physical activity for older people is included in our older adults evidence briefing at

www.ssehsactive.org.uk/older-adults

There is a significant increase in the numbers of older people reaching advanced old age

Ten million people in the UK are over 65 years old, and within this total, the number of very old people is rapidly growing. In 2012 there were three million people aged more than 80 years. This figure is expected to almost double by 2030.

Physical activity participation declines with age

Participation in physical activity declines significantly with age for both sexes. In 2009 in England, only 20% of men and 17% of women between the ages of 65 and 74 achieved the Chief Medical Officer's recommendation for physical activity and similar levels are reported in Northern Ireland, Scotland and Wales. This drops to 9% and 6% of men and women respectively over the age of 75⁽¹⁾.

This decline in activity with increasing age and fragility is further established as 86% of women and 78% of men in care homes are classified as inactive. Moreover, inactivity levels are even higher in nursing homes, with 90% of residents not having done a continuous walk of 15 minutes or more in the past month⁽³⁾.

The consequences of inactivity

Functional capacity declines with age and is further accelerated by low levels of physical activity. Even among healthy active people, strength, endurance, balance, bone density and flexibility are all lost at about 10% per decade. Muscle power is lost at an even faster rate at around 30% per decade.⁽⁴⁾

Key term - physical inactivity

Physical inactivity is described as “doing no or very little physical activity at work, home, for transport or during discretionary time... not reaching physical activity guidelines deemed necessary to benefit public health.”⁽²⁾

Gradually, this loss in physical function will impact upon an older adult's ability to maintain an independent life and perform activities of daily living such as getting out of a chair or using the stairs. By the age of 75, only 40% of men and 20% of women can walk for 30 minutes or more without difficulty.⁽⁴⁾

Sedentary behaviour

Sedentary behaviour increases with age and observational evidence using self-reporting and accelerometry indicates that sedentary time rises sharply from age 70 onwards.⁽⁶⁾ Furthermore, many older adults spend ten hours or more each day sitting or lying down, making them the most sedentary population⁽⁹⁾.

Key term - sedentary behaviour

Sedentary behaviour refers to a group of behaviours that occur whilst sitting or lying down and that typically require very low energy expenditure.⁽⁵⁾ The low energy requirements distinguish sedentary behaviours from other behaviours that also occur whilst seated, eg, chair-based exercise, but which require greater effort and energy expenditure. Sedentary behaviour is not defined simply as a lack of physical activity, it is a separate behaviour in its own right.

More detailed information on the benefits of physical activity for older people is included in our older adults evidence briefing at www.ssehsactive.org.uk/older-adults

Interpreting the CMO guidelines for frailer, older people

These guidelines are applicable to all older adults, irrespective of gender, race or socio-economic status. When interpreting the guidelines, consideration should be given to individual physical and mental capabilities, especially when working with frailer, older people.

This section provides greater detail on each of the guidelines with the purpose of providing professionals with an understanding of their relevance and how they apply to their work with frailer, older people.

Guideline 1

Older adults who participate in any amount of physical activity gain some health benefits, including maintenance of good physical and cognitive function. Some physical activity is better than none, and more physical activity provides greater health benefits.

Some physical activity is better than none

- Frailer, older people engaging in smaller amounts of physical activity will gain some benefits relative to being inactive.
- It is recommended frailer, older people take part in some physical activity every day.

Doing more physical activity provides greater health benefits

- The dose-response relationship for physical activity and health indicates 'more is better' in terms of the health benefits of physical activity.

It's never too late to start

- There is good evidence that the benefits of physical activity also apply in later, later life, even to those who have previously been inactive.
- There is good evidence that frailer, older people in later life can still obtain increases in physical fitness and physical function.

Guideline 2

Older adults should aim to be active daily. Over a week, activity should add up to at least 150 minutes (2½ hours) of moderate intensity activity in bouts of 10 minutes or more - one way to approach this is to do 30 minutes on at least 5 days a week.

Build up to a total of 150 minutes of physical activity each week

- For some individuals, particularly frailer, older people, 150 minutes may be daunting and seem unattainable due to low levels of fitness or functional capacity. Gradually working towards a goal of 150 minutes a week is recommended.
- The CMO guidelines suggest sessions as short as ten minutes can provide health benefits. Accumulating numerous sessions of ten minutes over a period of time may be a more realistic way for frailer, older people to achieve the CMO guidelines.
- For frailer, older people with low levels of activity, engaging in a small amount of activity, even at a level below the quantity recommended, will provide some health benefits relative to being totally inactive and is a good way to begin.

Physical activity should be aerobic activity of at least moderate intensity

- The type of activity someone needs to do to qualify as moderate intensity varies from one individual to another. A frailer, older person with low functional capacity may only have to walk at a slow pace for a short time, whereas a very fit athlete may be able to run quite fast for a long time before reaching this level.
- In frailer, older people with low functional capacity, encouraging them to move for longer (ie, progressing from five to ten minutes) may also increase the intensity (ie, from low to moderate) as the individual will have to work harder to sustain the activity.
- Moderate physical activity will cause older adults to become warmer, breathe harder and feel their heart beating faster than usual, but they should still be able to carry on a conversation.

- Many frailer, older people may feel daunted by being asked to raise their heart and breathing rate and may interpret this as an onset of a cardiac event or asthma.
- Education may be required to reassure the frailer, older person that these are normal responses to physical activity and are safe and appropriate for them.
- In an activity like walking, frailer, older people should focus on the perception of the effort they need to make rather than their speed. On a perceived effort scale of 0 (no effort) - 10 (major effort), moderate intensity physical activity is usually rated 5-6.

Guideline 3

For those who are already regularly active at moderate intensity, comparable benefits can be achieved through 75 minutes of vigorous intensity activity spread across the week or a combination of moderate and vigorous activity.

- It is neither recommended nor likely that frailer, older people engage in vigorous physical activity.

Guideline 4

Older adults should also undertake physical activity to improve muscle strength on at least two days a week.

- There is strong evidence for the additional health benefits of muscle strengthening activities.
- The strength recommendations are *in addition* to the 150 minutes a week.
- Strength activities should not be undertaken on consecutive days to allow the muscles to rest and repair.
- Some everyday activities can be used as strength activities, as well as participation in a class or home-based programme.
- Activities that improve strength are those that use the muscles against a resistance or extra weight and where they are performed slowly and repetitively (eg, 8-12 times).

- For a frailer, older adult, body weight or light resistance will initially have a strengthening effect. However as strength improves, heavier weights and slow repetitions will allow the training effect to continue.
- Muscle strengthening activities involving all major muscle groups (including the shoulder girdle, arms, trunk, legs and muscles that surround the ankles) will provide substantial benefits for frailer, older people.
- Strengthening activities for frailer, older people include using the stairs frequently, Tai Chi or dance, heavy housework or gardening, lifting and carrying, repetitive slow sit to stands (rising from a chair) as well as home-based or group classes that involve strength exercises, eg, with weights or resistance bands.
- Muscle strengthening activities will make the muscles feel more tension than normal, perhaps 'shake' and be warmer.
- It is normal and anticipated that the day after strengthening activities are undertaken there will be mild muscle stiffness, indicating the activity had a training effect.
- Education may be required to reassure the older adult that these normal responses to muscle strengthening activities are safe and appropriate for them, and are necessary to improve strength.

Guideline 5

Older adults at risk of falls should incorporate physical activity to improve balance and co-ordination on at least two days a week.

33% of older adults aged 65 fall every year. This figure increases to 50% at the age of 80 and is even greater among those living in care homes.⁽⁷⁾ There is good evidence that physical activity programmes which emphasise balance training, limb co-ordination, muscle strengthening and are tailored to the individual are safe and effective in reducing the risk of falls among frailer, older people.



- The balance recommendations are *in addition* to the 150 minutes a week.
- Activities that improve balance for frailer older adults include standing or moving about whilst standing and fit in one of the following categories:
 - reduced base of support, eg, standing on one leg for a while, going up onto tip toes, walking heel to toe
 - movement of the centre of mass, eg, dancing, standing Tai Chi and yoga, bowling, moving in different directions, most standing exercise classes and most music to movement classes
 - using movements that challenge balance by reducing the amount of upper body support, ie, switching from holding on to then being unsupported during the activity.

Guideline 6

All older adults should minimise the amount of time spent being sedentary (sitting) for extended periods.

Prolonged periods of sedentary behaviour are an independent risk factor for poor health. Sedentary behaviour rises sharply from the age of 70 onwards and can be as high as 80% of the day amongst care home residents. ⁽⁸⁾

- Sedentary behaviour refers to any activity that typically occurs whilst seated or lying down and which requires very low levels of energy expenditure.
- Sedentary behaviour may be reinforced by activity restrictions brought about by loss of physical function, fear of falling and by activity limiting living environments.
- Breaking up long periods of sedentary behaviour, even in those who are chair bound, is highly recommended. Some examples of ways to help do this are by standing and (assisted) walking around for a few minutes, slow sit to stands or seated physical activity.

Supplementary information

- Some activities, eg, sit to stands, dancing, Tai Chi and standing exercise to music, will contribute towards achieving combined aerobic, strength and balance recommendations.
- When working with older adults who have strength and balance deficits, additional care needs to be taken when promoting brisk walking because there can be an increased risk of falls. There is evidence that in these individuals, combining specific strength and balance training with a walking programme can help reduce this risk.
- Whilst chair-based exercise programmes can contribute towards moderate intensity physical activity, strength and some static balance improvements, there is no evidence they reduce falls.

Working towards and achieving the guidelines

The more you do, the greater the benefits

There is a clear dose-response relationship between physical activity and the prevention of diseases such as coronary heart disease and type 2 diabetes and greater benefits occur with increased participation. From a public health perspective, helping older adults to progress from moving, to moving more often, to moving regularly and frequently will produce the greatest reduction in risk. The more a frailer, older person is able to move (ie, be physically active), the greater the improvement in health and physical and psychological function. Additionally, greater physical activity levels will significantly contribute towards maintaining independence and successful ageing in later, later life.

In this document, when we describe the three stages of *moving*, *moving more often* and *moving regularly and frequently*, we are referring to the progressive increase in both duration and intensity.

Key messages

The evidence suggests **the overall volume** is the key to obtaining the beneficial effects of physical activity rather than specific types of activity or combinations of frequency and intensity.

This can be achieved by **accumulating short but regular bouts of physical activity** and, with improved confidence, firstly **increasing the duration and then the intensity** as appropriate.

The addition of strength and balance activities will bring increased benefits related to independence and mobility.

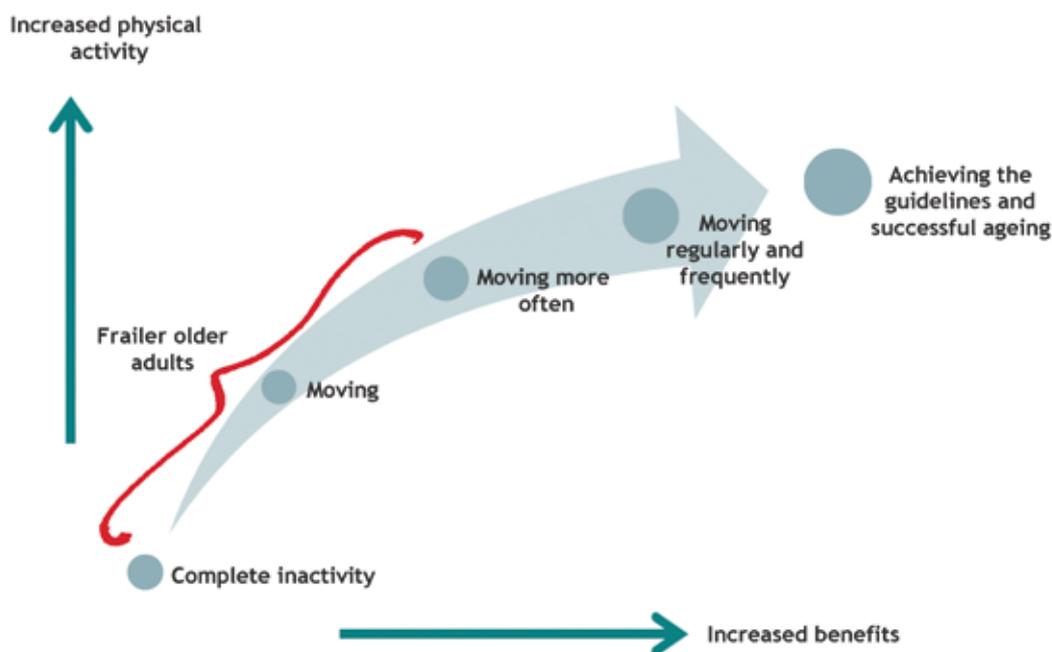


Figure 1 Increasing physical activity throughout the life span

Planning for the individual, what activities count?

It is difficult to be prescriptive about what activities are appropriate for frailer, older people. The needs of the individual should be the starting point of physical activity participation. Understanding individual interests and abilities, previous successful physical activity experiences, personal beliefs and expectations of others **should inform personal choice** on suitable activities. This is in addition to the use of an individual or person centred care plan which includes the medical conditions of the individual as well as the views of other health, therapy and social care professionals.

Sedentary behaviours

As already stated, sedentary behaviours refers to a group of behaviours that occur whilst sitting or lying down and that typically require very low energy expenditure. It is important to recognise that sedentary behaviours can be present across the model in Figure 1 and regardless of if an individual is on the way to meeting the physical activity guidelines.

Frailer, older people tend to spend most of their day in sedentary behaviours. It is important to offer them opportunities and encouragement to break up these periods of sitting, even if it is just with simple movements, like standing up from their chair.

Moving

As frailer, older people spend so much time in sedentary behaviours, the first step is to encourage them to move. Even the frailest and most inactive individuals can benefit from beginning to move even at a low intensity. For those with very limited physical function, small bouts of movement that promote circulation, eg, being encouraged to independently perform activities of daily living, will provide the opportunity to build physical activity into a daily life.

In many cases, even this amount of movement will require assistance. Some examples of ‘moving’ activities include:

- taking standing breaks from seated activities, eg, watching TV or reading, using regular slow sit to stands (rising from a chair)
- increased independence during activities of daily living, eg, dressing, washing and bathing
- increased (independent) performance of everyday living tasks, eg, cooking, household activities
- any physical activity that promotes circulation
- (assisted) walk and talk conversations with friends and family
- (assisted) or independent walking to meals, other activities and outdoors
- active play with the (great) grandchildren.





Moving more often

With increased confidence and success, more physical activity can be built into individual lives and the routine of a living environment by increasing opportunity. These might include:

- (assisted) walking with purpose
- moving around the living environment
- getting out into the fresh air, eg, gardening
- getting started in a new activity of choice or group, eg, dance and movement to music.

For some frailer, older people, encouraging them to move more often may also provide the stimulus to increase from low to moderate intensity activities.

Moving regularly and frequently

The final goal is enabling frailer, older people to move, ie, be physically active, on a regular basis. While they may be unable to be active for a long period of time, short frequent bouts can still bring about considerable health benefits. Some strategies used to increase frequency include:

- augmenting weekly group-based activities with individual take-away activities
- significant others using a variety of prompts and reminders to assist this process
- adding additional activities to daily and weekly routines, eg:
 - group-based dance and movement, Tai Chi and games activities, swimming or water-based activities
 - opportunities to visit places of interest in the local community, eg, garden centres, shopping centres, places of worship
 - joining a local activity group or class.

Including strength and balance

The strength and balance recommendations are *in addition* to the 150 minutes a week. Strength and balance activities can be achieved through some everyday activities as well as participation in a class or home-based programme of specific exercises. Examples of strength and/or balance activities include:

- improving wrist/grip strength, eg, squeezing soft balls and progressing to firmer balls
- improving leg strength, eg, sit to stand from a chair (increasing repetitions or at a slower pace to progress)
- use of stairs and steps (including repetition and changing leading leg)
- strength and balance training groups and falls prevention classes in the local community
- slow heel raises whilst supported to increase confidence.

Maintaining function in later life

For some frailer, older people, measurable improvements in function in later, later life may be hard to demonstrate. Consequently, participation in physical activity may serve to maintain physical and psychological functioning and activities of daily living. Additionally, it importantly helps sustain a meaningful quality of life through interaction with others and the environment.

Chair-based activities (including exercise)

Whilst chair-based activities are an excellent way of introducing physical activity movement and exercise, the very nature of chair-based activities means that what is achievable is limited. Some frailer, older people will prefer the security and stability provided by the chair, while others may be restricted to chair-based activities by their functional limitations. That being said, some strengthening activities started in a chair will allow joints to become more stable, and a frailer, older person may eventually be able to progress to standing work.

To achieve optimal improvements in endurance, balance, co-ordination and other functional movements required in everyday life, it is beneficial to work towards supported standing activities and eventually to free standing strength and walking activities. This process should be aided by an appropriately qualified and experienced professional.

Group-based activities

In addition to providing opportunities for physical activity, both seated and standing group activities, eg, dance and movement, Tai Chi and games, provide increased motivation through social interaction and opportunities for learning. However, it is unrealistic to expect that these activities are provided on a daily basis. Teachers and group leaders should encourage and educate participants to continue with activities included within group sessions in their own time. These activities can add to the total volume of physical activity undertaken throughout the week.



Motivating frailer, older people

Increasing physical activity among frailer, older people represents a significant challenge. Many may depend on others for basic activities of daily living and have disabling conditions. Similarly, frailer, older people may have cognitive impairments or be concerned about falling or over-exertion. Also, patterns of sedentary behaviour may be well established with no habitual routine of physical activity.

Frailer, older people will be more motivated to be active when they:

- find a sense of purpose or reason to move, eg, relevance to their situation and self-identity
- feel safe and can trust those assisting and supporting them
- believe that significant others, eg, family members, care givers and professionals, have positive attitudes towards their physical activity
- have confidence in the skills of physical activity instructors, teachers and leaders
- are successful and recognise their own achievements
- discover opportunities to interact and socialise with other people
- engage with personal interests and enthusiasms.

Appropriate programming and leadership

Programmes in residential and care settings should be feasible, acceptable to staff and participants, and be evaluated using relevant outcomes for physical function and quality of life. In all settings, those providing physical activity programmes should have adequate training and understanding of the specific needs and differences in physical activity for frailer, older people.

Benefits and risk

Evidence suggests frailer, older people are concerned about over-exertion and causing harm to themselves. Additionally, during physical activity, the fear and risk of falls may be further exaggerated in frailer, older people.

The risks associated with taking part in physical activity at a health promotional level, though, are minimal for most individuals. Continuing with an inactive lifestyle presents greater health risks than gradually increasing physical activity levels. Those who are the least active have the most to gain from taking part in even small increases of regular physical activity. If frailer, older people gradually increase the volume and/or intensity of their physical activity, they are unlikely to face undue risks.

An individual care plan should indicate the extent to which a frailer, older person can be encouraged to move independently, walk or require support and/or supervision from a professional. When recommending physical activity to frailer, older people it is important to take into consideration any long-term medical condition they may have and how this influences their capacity for physical activity. A focus and building upon what an individual can do should be the starting point of any physical activity programme.

Most importantly, the health benefits of physical activity outweigh the risks.

Public advice on physical activity for frailer, older people

Top line messages

Moving more often every day

1. Something is better than nothing.
2. Build up your physical activity gradually.
3. Be sure to add activities that will help you be strong and steady.
4. Limit and break up the amount of time you spend sitting still.
5. The health benefits of physical activity outweigh the risk.

In providing clear and simple advice for frailer older people, these top line messages summarise the important information included in the CMO guidelines for physical activity and older adults. These messages may need to be tailored for the individual.



Case study

This case study is provided to illustrate how it is possible for a frailer, older person to work towards achieving the CMO physical activity guidelines. In addition to the activities suggested it highlights the type of support from significant others and access to physical activity enhancing environments and opportunities that might make this possible.



Rosemary 92 years - a frailer, older person living in a residential home

Rosemary is single and lives in a residential home as a result of her increasing frailty and a bad fall following prolonged spells of dizziness and confusion. She is able to walk with assistance from a walking frame and is actively involved in the user forum that plans a regular programme of activities for residents.

Rosemary's increasing frailty has been highlighted within her individual care plan, and a visiting physiotherapist, who leads a weekly strength and balance class, has provided her with a small number of muscle strengthening exercises for her legs and arms. Determined to maintain her independence, Rosemary is motivated to do these by herself, and the staff support her mostly through encouragements to do the exercises on a regular basis. Consequently, Rosemary is becoming more confident about walking unaided but supervised to the dining room. The staff also ensure she is able to enjoy regular fresh air by accompanying her on assisted walks to the grounds to enjoy the scented garden and sitting by the ornamental pond. When the weather is unpleasant, Rosemary substitutes these visits with a corridor walk to visit other residents.

Rosemary is an enthusiastic participant in painting and music classes, activities that she is encouraged to do in her own time, and she always attends sessions provided by visiting speakers. In order to break up the long periods that residents spend seated and sometimes asleep, the staff and residents have agreed a 'Get up and Go' action plan, that encourages residents to make a move of their own choice every 90 minutes. As part of this action plan, a refreshment trolley arrives in the lounge at regular intervals and residents are encouraged, when possible, to stand and make their own drinks. They are also planning a walking challenge where residents will collectively accumulate and turn walking steps into miles, equivalent to the distance between their home and a twinned residential home in the USA.

Resources to help promote physical activity and reduce sedentary behaviour amongst frailer, older people

Chief Medical Officers Report (2011) Department of Health

Start Active, Stay Active - For the full report on physical activity for health which summarises the guidelines, including for the first time, guidelines for early years and older adults (65+). Available at www.ssehsactive.org.uk/guidelines

Active for Later Life Resource (2008)

A resource for professionals promoting physical activity amongst older adults, including summaries of evidence, programme planning, working papers and links to other organisations. Available at www.ssehsactive.org.uk/older-adults

Occupational therapy interventions and physical activity interventions to promote the mental wellbeing of older people in primary care and residential care NICE public health guidance 16 (2008)

This guidance focuses on the role of occupational therapy interventions and physical activity interventions in the promotion of mental wellbeing for older people. The guidance is for professionals who have a role in promoting older people's mental wellbeing, including the public, private, voluntary and community sectors and carers and family members who support older people. Available at www.nice.org.uk/PH16

Guidelines on Older People and Physical Activity (2008)

A summary of the evidence on programming physical activity for older adults. Available at www.ssehsactive.org.uk/older-adults

Physical activity and older adults (65+) - evidence briefing (2012)

A summary of the evidence on physical activity for older adults for commissioners, policy makers and practitioners. Available at www.ssehsactive.org.uk/older-adults

Prevention Package for Older People (2009) Department for Health

The prevention package raises the focus on prevention as a means of ensuring good health, wellbeing and independence in later life by promoting and encouraging uptake of comprehensive health and social care services for older people. Available at www.dh.gov.uk/publications

Staying Strong - Staying Steady (AGE UK) DVD and booklet

Guidance and resources on strength and balance exercises for older people. Available at www.ageuk.org.uk/exercise-materials

Zest for Life (AGE UK)

Based on learning from the Age UK Fit as a Fiddle programme, a series of three booklets on nutrition, regular activity and improving mental health for older people in care settings. Available at www.ageuk.org.uk

Chair based Exercise and Otago Exercise programme exercise booklets

Resources written for physical activity and exercise instructors and leaders on exercises for frailer, older people. Available at www.laterlifetraining.co.uk

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