

Interpreting the UK physical activity guidelines

Older adults in transition
older adults (65+)

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Achieving the physical activity recommendations for older adults can play an important part in assisting older adults 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.

Key term – older adults

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

Key term – older adults in transition

Those whose function is declining due to low levels of activity and too much sedentary time, who may have lost muscle strength and/or are overweight but otherwise, remain reasonably healthy. National data indicate that this makes up the larger proportion of older adults and that they have a great deal to gain in terms of reversing loss of function and preventing disease. This group is described as in transition as they may be moving from good health to poor health, from being fit to being unfit and from independence to dependence.

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

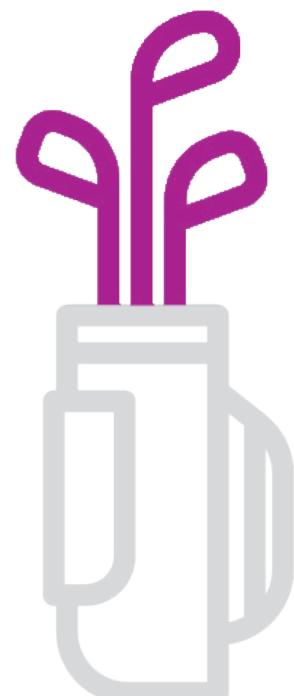
The guidelines are issued by the four Chief Medical Officers of England, Scotland, Wales and Northern Ireland and draw on global evidence for the health benefits of regular physical activity throughout the life course. They take the form of evidence-based summary statements and are the basis for the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

These guidelines are written for the professional audience who work with older adults who are in transition 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 activities with older adults in transition. In general, the CMO physical activity guidelines and this advice should be used to:

- inform the professional development and training of those working with older adults described as in transition
- form the basis of any advice given to older adults within motivational settings, eg, by those in primary care, health trainers, active ageing organisations, social care and other services, physical activity leaders, exercise class instructors
- underpin the design and implementation of physical activity programmes
- provide a focus for national and local campaigns designed to target older adults in transition, 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 older adult in transition.

Older adults in transition

Older adults in transition describes those whose function is declining due to low levels of activity and too much sedentary time, who may have lost muscle strength, and/or are overweight but otherwise remain reasonably healthy. This group of the older adult population is described as being in transition because they may be moving from good health to poor health, being fit to being unfit and independence to dependence.



Why do we need physical activity guidelines for those in transition?

Physical activity is important for older adults in transition

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. Regular physical activity can assist in reversing the age-related decline in physical and psychological function.

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.

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.

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⁾.

The consequences of inactivity

Functional capacity declines with age and is 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⁽³⁾.

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. For example, by the age of 74, only 42% of men and 22% of women can walk for 30 minutes or more without difficulty. Similarly, because of low strength, 25% of women and 7% of men of this age are at risk of being unable to get out of a low chair⁽³⁾.

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⁾

A downward spiral of physical and psychological function

There is evidence that in older adults whose physical function is declining, they experience a loss of mobility which consequently leads to a more limited and isolated life. Consequences of this more limited life include further decreases in physical function, such as loss of strength, balance and walking ability and increased immobility which can bring about depression and loneliness. Ultimately, the older adult can become trapped in a downward spiral of declining physical and psychological health.

Sedentary behaviour

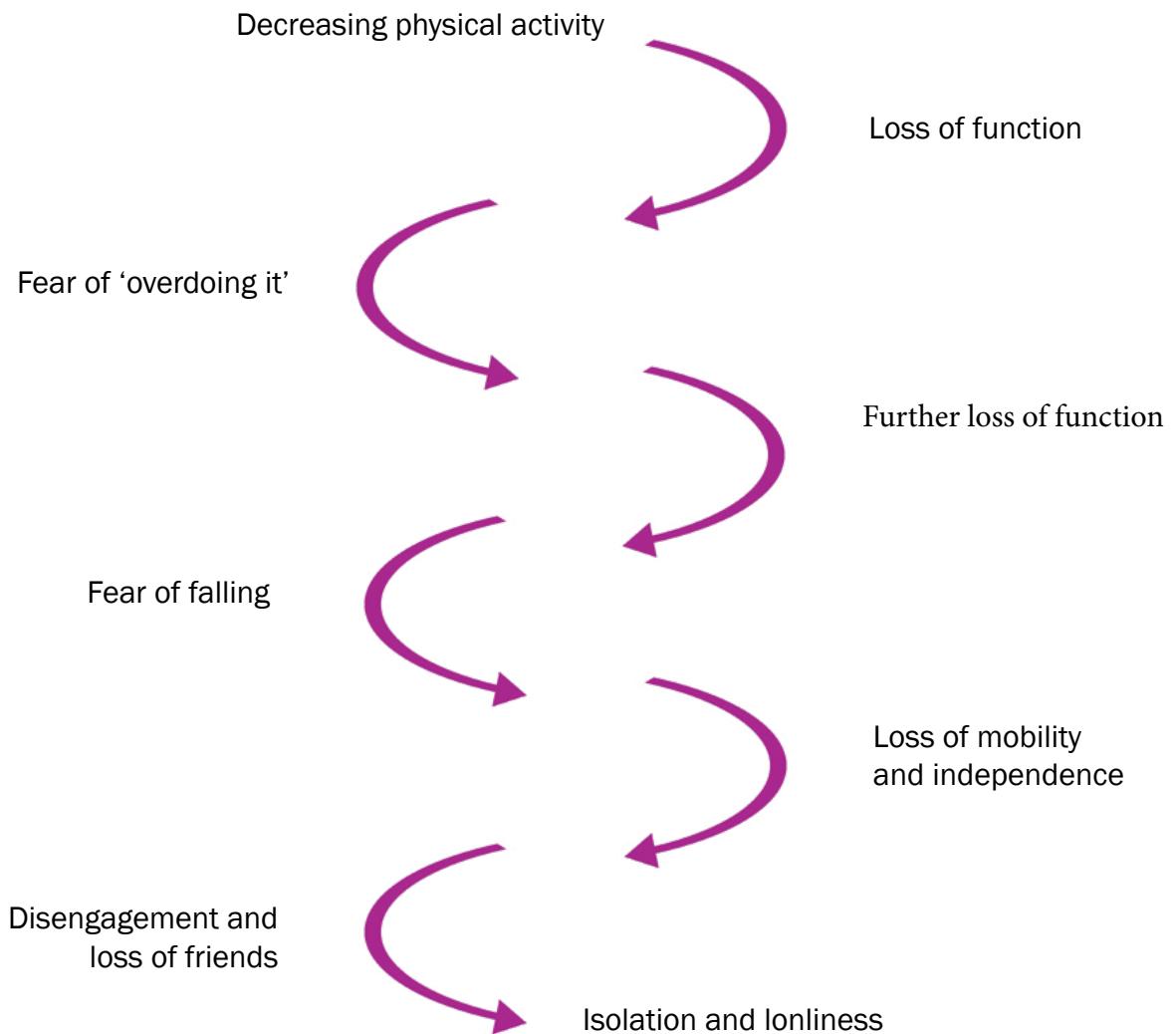
Sedentary behaviour increases with age and observational evidence using self-reporting and accelerometry indicates that sedentary time rises

sharply from age 70 onwards⁽⁵⁾. Furthermore, many older adults spend ten hours or more each day sitting or lying down, making them the most sedentary population⁽⁷⁾.

Key term – sedentary behaviour

Sedentary behaviour is not defined simply as a lack of physical activity. It refers to a group of behaviours that occur whilst sitting or lying down and that typically require very low energy expenditure⁽⁴⁾. The low energy requirements distinguish sedentary behaviours from other behaviours that also occur whilst seated, eg, chairbased exercise, but which require greater effort and energy expenditure.

Figure 1 Downward spiral of physical activity function and decline





Interpreting the CMO guidelines for those in transition

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 older adults in transition.

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 older adults in transition.

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

- It is recommended for older adults in transition take part in some physical activity every day.
- Older adults in transition engaging in smaller amounts of physical activity will gain some benefits relative to being inactive.

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.
- For those already active, increasing the general level of activity as well as introducing additional activity will help to improve particular components of fitness or function.

It's never too late to start

- The benefits of physical activity also apply in later life, even to those who have previously been inactive or have stopped.
- There is good evidence that all older adults can 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 each week

- For some older adults in transition, 150 minutes may be a significant challenge due to low levels of fitness or functional capacity. Therefore a gradual increase, 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 older adults in transition to achieve the CMO guidelines.
- Periods of 30 minutes on 5 or more days of the week is a good target to aim for.

Moderate intensity

- The type of activity someone needs to do to qualify as moderate intensity varies from one individual to another. One person with a lower 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 before reaching this level.
- 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 older adults in transition may feel nervous at 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 older adult that these are normal responses to physical activity and are safe, appropriate for them and necessary to improve fitness.
- In an activity like walking, older adults in transition 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.

- Vigorous intensity physical activity brings significantly increased benefits for some fitness and health outcomes. However, vigorous intensity activity is only recommended for those who are used to this level of activity.
- It is unlikely and not recommended that older adults in transition should undertake vigorous intensity 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 older adults, 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 older adults in transition.
- Strengthening activities 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⁽⁶⁾. 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 older adults.

- The balance recommendations are in addition to the 150 minutes a week.
- Activities that improve balance 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 is associated with age and rises sharply from the age of 70 onwards⁽⁷⁾.

- Sedentary behaviour refers to any activity that typically occurs whilst seated or lying down and which requires very low levels of energy expenditure.
- Activity restrictions brought about by loss of physical function, fear of falling and by activity limiting living environments can lead to increased sedentary behaviour. For example, an older adult with a fear of falling may choose to stay in and watch TV instead of going out with friends if they are worried about navigating a set of stairs.
- Breaking up prolonged periods of sedentary behaviour is highly recommended. Examples to help do this are walking around for a few minutes or slow sit to stands.

Supplementary information

- Some activities, eg, repeated sit to stands, dancing and standing and 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.
- There is little evidence to support the use of chair-based activities with older adults in transition. Whilst chair-based exercise programmes can contribute towards moderate intensity physical activity and some improvements in strength and balance, there is no evidence that they reduce falls. Standing physical activity is necessary to improve both physical and psychological health outcomes, as there is little evidence chair-based activities provide these outcomes.





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 an older adult in transition 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

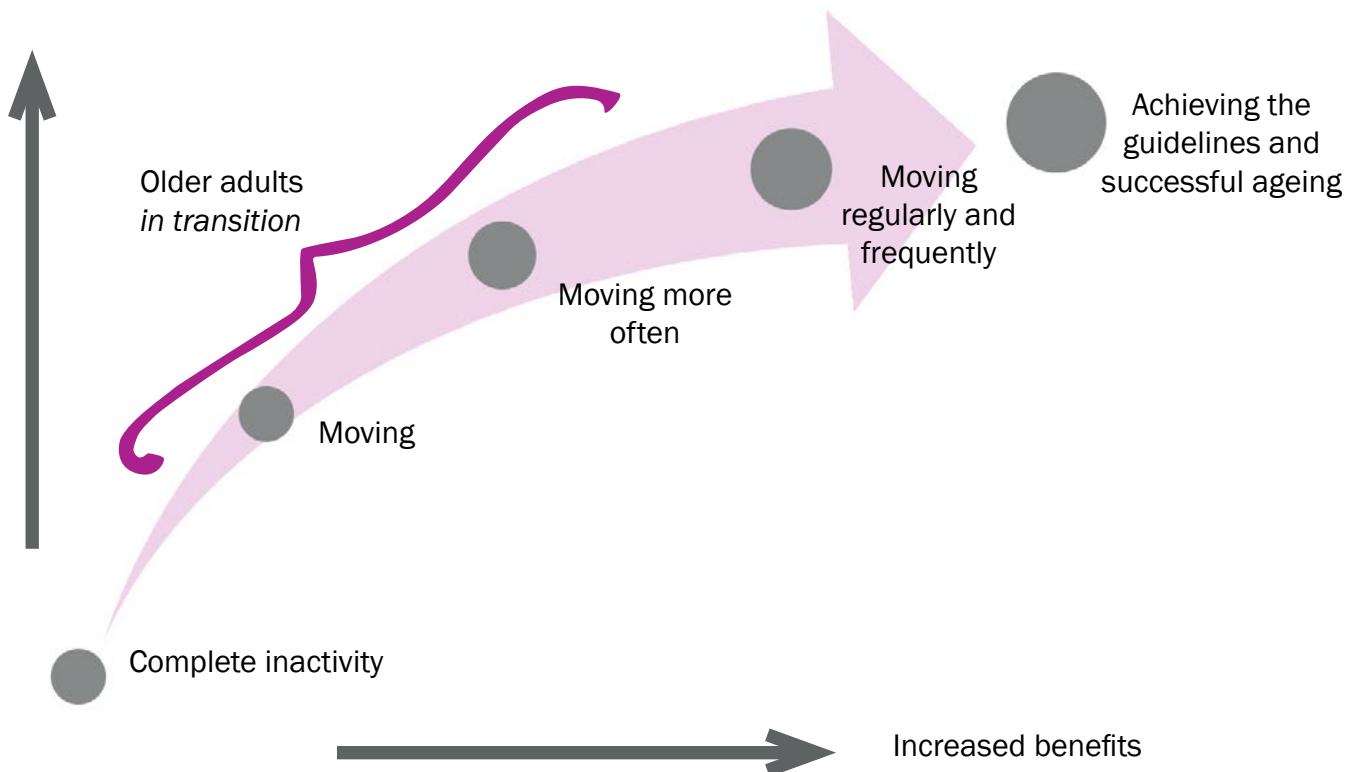
The evidence suggests the overall volume is the key to obtaining the beneficial effects of physical activity rather than specific types of activity or combinations of frequency and intensity.

Increasing the duration and then the intensity of physical activity should be the priority for older people in transition.

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

Increased physical activity

Figure 2 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 older adults in transition. 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 behaviour

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 2 and regardless of if an individual is on their way to meeting the physical activity guidelines.

For older adults *in transition*, it is important to break up periods of sedentary behaviour. This can be achieved by:

- taking standing breaks from seated activities, eg, regular slow sit to stands (rising from a chair)
- decreasing time spent in front of a screen, eg, TV or computer
- standing to talk on the telephone or whilst on the train or bus.

Moving

As older adults *in transition* may spend a great deal of their day being sedentary, it is important to encourage continued movement to help them build and maintain their functional capacity.

Those in transition can benefit from small bouts of movement such as performing activities of daily living. This will provide them with continuous opportunities to build and maintain physical activity in their daily lives. Activities might include:

- home-based activity, eg, in the garden, household chores
- walk and talk conversations with friends and family

- using the stairs
- active play with the grandchildren
- any physical activity that promotes circulation.

Moving more often

More physical activity can be built into individual lives by increasing both the frequency, eg, the number of times per day, per week, as well as the intensity, eg, by walking at an increased pace.

These might include:

- walking with purpose, eg, to the shops, places of worship, visiting neighbours and friends
- getting started in a new activity of choice or going back to a previous interest
- visiting places of interest in the local community that provide safe walking routes, eg, garden centres, shopping centres or parks.

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

Moving regularly and frequently

The most significant change that older adults in transition can make is increasing the regularity and frequency of physical activity. This can be achieved by:

- augmenting weekly group-based activities with individual home-based activities
- adding additional activities to daily and weekly routines, for example:
 - joining a club, group-based activity class or local community group, eg, Tai Chi or walking groups
 - increasing the opportunities to visit places of interest in the local community, eg, garden centres, shopping centres, places of worship.

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, like the Otago Exercise Programme or postural stability classes.

Activities that improve strength are those that use the muscles against a resistance or an extra weight and are performed slowly and repetitively,

eg, 8–12 times. They should include activities that involve all major muscle groups such as the shoulder girdle, arms, trunk, legs and the muscles that surround the ankles. Some good example of strength activities include:

- daily living activities like heavy housework or gardening, lifting and carrying
- frequent sit to stands from a chair (increasing repetitions or at a slow pace to progress) and repeated use of stairs and steps (including repetition and changing leading leg)
- using repetitive body weight movement, eg, resistance bands, exercise to music or gym weight machines
- aqua aerobics or other water based activity that uses floats or equipment to add resistance in the water.

Activities that improve balance include standing or moving about whilst standing and that fit in one of the following categories:

- reduced base of support for body weight, ie, standing on one leg for a while, going up onto tip toes or walking heel to toe
- movement of the centre of mass and moving in different directions, eg, dancing, standing Tai Chi and yoga, bowling and most standing exercise to movement classes
- using movements that challenge balance or reducing the amount of upper body support, eg, from slow heel raises whilst supported to increase confidence then moving to unsupported.

Chair-based activities (including exercise)

Whilst chair-based activities are a popular way of providing activities for older adults and are a good way of introducing physical activity and exercise to older adults, they have a limited value for people who are already *in transition*.

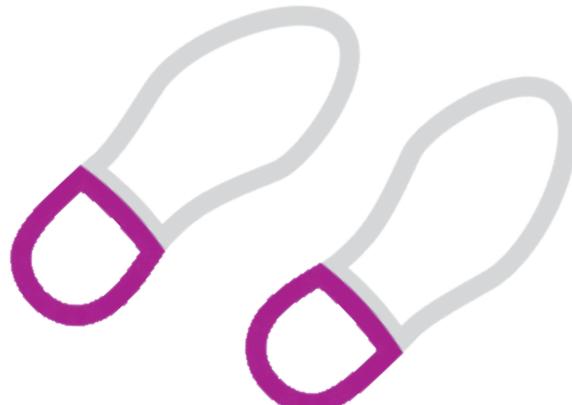
While some people will prefer the security and stability provided by a chair, the very nature of chair-based activities means that what is achievable is limited. However, some strength activities started in a chair will allow joints to become stable and encourage an older person to progress to standing work.

To achieve optimal improvements in endurance, balance, co-ordination and the wide range of functional movements involved in everyday

life, the priority and focus of physical activity programmes should be on (supported) standing activities that challenge balance and free standing strength and walking activities. These sorts of free standing and walking activities are of particular importance for those older adults in transition as the maintenance and improvement of strength and balance is a priority.

Group-based activities

In addition to providing opportunities for physical activity, group activities such as dance, Tai Chi and games, provide increased motivation through social interaction and opportunities for learning. However, it is unrealistic to expect these activities can be undertaken on a daily basis. Teachers and group leaders should encourage participants to continue with activities included within group sessions in their own time. This will allow older adults to continue adding to their total volume of physical activity undertaken throughout the week.





Motivating older adults in transition

These new guidelines for older adults represent a significant challenge both to older adults and for services who work with them to increase levels of physical activity. Evidence indicates physical activity levels among older adults are low and sedentary behaviour increases with age. For many older adults, and particularly those with low levels of activity, accumulating 150 minutes a week as well as incorporating strength and balance activities represents a substantial challenge.

An older adult's motivation to participate in physical activity depends on a variety of personal attitudes, appropriate opportunities and broader environmental factors. There is also some evidence that older adults are not motivated to take part in strength and balance activities as a means of avoiding falls. Older adults will however undertake these activities if they know these activities will help to maintain their independence and allow them to remain engaged in activities that are integral to an active later life.

Below are listed factors which could enable those in transition to make the decision to increase their physical activity levels.

Individual motivation to participate will depend upon:

- a positive attitude towards physical activity
- a belief in the benefits of physical activity
- belief in one's ability to be active (self-efficacy)
- feelings of confidence, success and achievement
- activities that are consistent with personal goals, identity and lifestyle
- social support from friends, peers and family
- education on the way the body feels when activity is having a training effect.

Appropriate opportunities that meet their needs which may include:

- convenient and attractive walking opportunities, with places to sit when a rest is needed

- age-appropriate community-based programmes
- accessible groups and classes
- opportunities for social interaction
- activities led by experienced and qualified leaders, instructors and teachers
- opportunities to try out and experience new activities as well as continuing with those they enjoy.

Participation will also depend upon broader environmental factors such as:

- safe, age-friendly neighbourhoods and communities
- support from significant others, eg, primary care, health professionals, friends, family and peers
- local policies that ensure high quality, sustainable and age friendly physical activity opportunities
- access to green and other natural environments.

Appropriate programming and leadership

With the right help and support, older adults can make small but significant changes in their physical activity levels. To help do this, older adults need accurate information about how much and what type of physical activity they should be doing.

It is important that community-based physical activity programmes are designed to meet the needs of participating older adults. Their impact on older adults should also be evaluated using relevant outcomes for physical function and quality of life.

Furthermore, leaders, teachers, instructors and coaches providing physical activity programmes in all settings should:

- have adequate training and understanding of the specific needs and differences in physical activity for older adults
- ensure programmes are age-appropriate
- provide a supportive environment.

Benefits and risk

Whilst older adults may be concerned about overexertion and causing harm, the risks associated with taking part in physical activity at a level that promotes good health are low. Continuing with an inactive and sedentary lifestyle presents greater health risks than gradually increasing physical activity levels.

In general, engaging in physical activity carries a very low health and safety risk for older adults described as being in transition. The risk of activity-related injury is linked to a person's usual amount of activity and the increase in volume or intensity of these activities. Small, gradual increases in the volume or intensity of activity will allow for adaptation and a lower risk of injury.

Higher risks can occur, predominantly among those exercising at vigorous levels or taking part in contact sports. However, most of these risks are preventable, and these sorts of activities are unlikely to be undertaken by older adults in transition. In extremely rare cases, inactive and unfit individuals who start doing vigorous physical activity may face increased cardiovascular risks.

Most importantly, the health benefits of physical activity outweigh the risks. By contrast the risks of poor health as a result of inactivity are very high.

Public advice on physical activity for older adults

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 older people in transition, 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 older adults in transition to increase activity levels and work towards achieving the CMO physical activity guidelines. In addition to the activities suggested it also highlights the type of support from significant others and access to physical activity enhancing environments and opportunities that might make this possible.



David 81 years old – an older adult in transition living alone

David is 81 and lives alone. He continued to work until the age of 74 and is determined to keep busy and maintain his independence. His eldest son lives not too far away. David has built up strong friendships and local support networks, particularly since he lost his wife. Since retiring and his wife's death, he has found a new lease of life in helping others. During the week, David assists at a lunch club teaching IT skills to other participants. Although not a driver, he makes sure he gets out and about several times a week, visiting a friend in a nursing home, attending a local pensioners' group and walking to his local pub twice a week.

Having spent time as a young man in the Royal Navy, David enjoys the fresh air, takes pride in his fitness and still does as much of his own housework as he can. Although his daughter-in-law drives him to do a weekly food shop, he uses a local shop to collect a daily newspaper. As a former football apprentice, he regularly goes on the bus to attend home games at his first club and attends a former players' network group which runs healthy cooking classes for single men. His oldest son and family also regularly arrange to take him for a day out to the seaside.

David found that a local chair-based exercise class was not to his taste. Instead, helped by a physiotherapist, he has a programme of strength and balance activities that he does his best to do at home. He also sought out a local volunteering group offering twice weekly accompanied walks and over the last two months, has progressed from the starter to the regular group and persuaded his best friend to come with him.

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