



STOPFALLS

# Sit Less, Move More

A guide to increasing physical activity levels  
across the care sector in Hertfordshire

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## The Need

### Improving the Health of People who receive Care.

There is increasing evidence that sedentary activity among the older population is becoming more and more problematic. The latest statistics indicate that a lack of physical activity is the major cause of Type 2 diabetes, high blood pressure, obesity, coronary heart disease, stroke and other conditions that affect the blood vessels. Physical inactivity is the fourth leading risk factor for global mortality, with the most recent figure sitting at 3.2 million deaths per year<sup>(37)</sup>.

Recent NICE guidance on older people with social care needs and multiple long-term conditions (2015), recommends that Care Providers ensure that care and support

addresses the specific needs of these Older Adults, by offering opportunities for movement, including walking groups, exercise and dance<sup>(2)</sup>. This is in accordance with the Care Act (2014), which urges Care Providers to provide services to the people in their care, that promote independence and prevent deterioration, regardless of any pre-existing condition<sup>(18)</sup>.

Although the benefits of physical activity have been reported for decades, there has been limited guidance on what and how much is needed to achieve health benefits, particularly in Social Care settings.

*Please note: For the purpose of this resource, the Department of Health's UK Chief Medical Officers' Physical Activity Guidelines (CMO) (2019) has been the primary source of information referenced. The individual references therein have not been specifically referenced. The reader is therefore directed to the CMO document for the original references .*

### What and how much?

Older adults in particular should include activities that improve strength, flexibility and balance, in order to maintain function and confidence, as well as to reduce the risk of falls<sup>(16)</sup>.

The CMO found that small increases in the amount of daily activity in this group of people can result in significant health and functional benefits. The guidelines state that "some is good, more is better" and even light activity (such as standing for short periods), has distinct benefits over being sedentary<sup>(2)</sup>.

Interestingly, the improvements gained from increasing the time spent being physically active are especially significant for those starting from the lowest level of activity and, the health benefits for each minute added, are likely, to be proportionately greater. In other words:

*Every minute counts!*

*It's never too late to start!*

*Some is good, more is better!*

*Even a little movement is better than nothing!*

## In order to gain health benefits Older Adults (65+) should:

- Be active every day
- Participate in any activity that helps maintain physical and mental health, wellbeing and social functioning
- Undertake physical activities aimed at improving muscle strength, balance and flexibility (these can be combined with aerobic activity) at least 2 days/week
- Build up from current levels and aim to accumulate 150 minutes/week of moderate intensity or 75 minutes/week of vigorous activity (or shorter duration very vigorous activity or an equivalent combination of each)
- Break up prolonged periods of being sedentary (sitting) with light activity such as hourly standing practice

The guidelines categorically state that the benefits associated with physical activity in Older Adults outweigh the risks<sup>(2)</sup>. The barriers and risks however, can sometimes be difficult to overcome. The Risks, Barriers and Considerations on page 18 of this booklet gives some guidance.

*\*Please note: It is important to seek advice from an appropriately trained professional for guidance on specific individuals. See Specialist Health Intervention on page 30.*

## In order to gain health benefits Adults (19-64) should:

- Be physically active very day
- Participating in any activity is better than none, more is better still
- Undertake strengthening activities such as heavy gardening, carrying heavy shopping or resistance exercise – 2 or more days/week, although any is better than none
- Accumulate 150 minutes moderate intensity activity (e.g. brisk walking/cycling) or 75 minutes vigorous (e.g. running) or shorter duration very vigorous activity (e.g. sprinting/ stair climbing) or an equivalent combination of each
- Minimise time spent sitting, by breaking up periods of being inactive with physical activity (at least light activity) as much as possible

The guidelines suggest that more than 150 minutes/week of physical activity, along with dietary changes, may be required for weight loss, but states that the evidence continues to emphasise the role of physical activity in maintaining weight loss, as well as the health benefits in obese people even in the absence of weight loss<sup>(1)</sup>.

## Gender and Ethnicity

The CMO states that although much of the evidence on the links between physical activity and health has been gathered from studies on men, more recent evidence shows similar links in women. Also, whilst the data predominantly includes white populations, there is no reason to assume there are differences according to ethnicity<sup>(2)</sup>. There may be differences pertaining to the type of activities that are meaningful to different people, but these should be established on an individual basis.

## Disability

The evidence is growing on the amount and type of physical activity required for health benefits in adults with disabilities, although it appears to be mainly based on studies on people with spinal injuries, or intellectual impairments, and not on people with other conditions. It would make sense therefore that, for adults with disabilities, physical activity needs to be at an appropriate level to the individual's specific needs and abilities, but still, **"some is good, more is better"**.

## Falls Guidance and Information:

NICE guidance (2013) on falls in older people also states that multifactorial interventions with an exercise component are recommended for older people in extended care settings, who are at risk of falling<sup>(23)</sup>.

In Older Adults with frailty, history of regular falls or vertebral fractures, or moderate-to-severe dementia, new exercise interventions should be prescribed and supervised at first by an appropriately trained and qualified Health Professional, in order to ensure safety and to reduce the risks of injury<sup>(2)</sup>.

A muscle strengthening and balance programme is recommended for older people living in the community, with a history of recurring falls and/or balance and mobility problems. This should be individually prescribed and monitored by an appropriately trained professional<sup>(23)</sup>. People caring for persons known to be at risk of falling should develop and maintain basic professional competence in falls assessment and prevention [2004]<sup>(23)</sup>.

People at risk of falling and their Caregivers should be offered information verbally and in writing about:

- What measures they can take to prevent further falls
- How to stay motivated if referred for falls prevention strategies which include exercise or strength and balancing components
- The preventable nature of some falls
- The physical and psychological benefits of managing falls risks
- Where they can seek further advice and assistance
- How to cope if they have a fall, including how to summon help and how to avoid a 'long lie'<sup>(23)</sup>

*\*Please refer also to HCPA StopFalls resources*

# Aims of this booklet

This booklet is intended to fill a gap in the guidance on physical activity for individuals in Adult Social Care. It includes evidence-based approaches and strategies for those in the receipt of care. It aims to help Care Staff and others involved in the delivery of care to:

- Be aware of the need for physical activity for individuals receiving care
- Have knowledge of the various benefits of regular physical activity
- Understand the different levels of physical abilities and specific needs of individuals in a care environment
- Use different motivational techniques and strategies to encourage physical activity and movement, such as goal setting
- Have an awareness of the various opportunities for physical activity available to people receiving care
- Understand how to manage some of the barriers and risks associated with physical activity

# How to use this booklet

In order to find the most suitable physical activity for people in your care setting, you can use this booklet in one of two ways:

## Option One

This option helps you find the best physical activity opportunities for people in receipt of your care.

1. Find out whether the people in receipt of your care are either 'active', 'in transition' or 'frail' from the description given under the 'Your Care Setting' section on page 16.

**ACTIVE** **IN TRANSITION** **FRAIL**

2. Then you can match the physical abilities in your setting with an appropriate activity. For example, people considered 'frail' would be more suited towards Daily Mobilisation or Chair-Based Exercise
3. Finally, this resource highlights the staff, skills, equipment needed, management of barriers, and opportunities in the community, to help you embed this activity into your care setting

## Option Two

This option focuses on specific benefits and outcomes for people in receipt of your care.

1. Find out the needs of the individual from their care plan. For example, you might determine that improved balance is necessary for an individual at risk of falls
2. Look at the 'Opportunities for Physical Activity' section on page 23. Find the activity that is likely to achieve the desired outcome for the individual. For example, one of the benefits under OTAGO/Postural Stability Classes is increased balance
3. Look at the additional information under 'Benefits of Physical Activity' which helps highlight how these benefits can positively impact areas of an individual's life

*Please make use of the Additional Resources page available for your service on page 31.*



# Health Benefits of Physical Activity

Whilst this section gives examples of different types of exercise, it is important to remember that risk assessments must be in place where necessary and that, for a person with specific impairments and needs, a referral should be made to a qualified Allied Health Professional (Physiotherapist (AHP)), or your Service's Chair-Based Exercise Instructor, who can refer to the appropriate person (see page 28).

**REMEMBER:** "More is better than none" <sup>(6)</sup>

## Physical Activity specifically improves:

**Cardiovascular (aerobic) health** – improves fitness, by improving heart and lung function

**Flexibility** – improves muscle length and joint range of movement, therefore improves function

**Strength** – improves muscle strength, delaying the natural decline that occurs due to ageing

**Bone Density** - improves bone mass, delaying the natural decline that occurs during aging, which reduces the likelihood of developing osteoporosis (see section on 'Increased Bone Density' on page 11)

**Balance** – improves balance, reducing risk of falls

## Physical Activity also:

- Reduces risk of disease and the effects of certain diseases
- Helps manage existing conditions
- Develops and maintains physical, mental and cognitive function
- Can contribute to improved social functioning and confidence
- Can reduce loneliness, social isolation and depression

## Increased Heart and Lung Function

### Cardiovascular (Aerobic) Activity:

- Improves fitness by improving heart and lung function
- As the intensity of the activity increases, energy expenditure also increases
- Is relative to the individual's level of fitness, so what may be light intensity for a fit individual may be vigorous for someone who is less fit
- Activity levels need to be built up gradually. If the exercise is too difficult for the person, they may be demotivated
- Use the 'Talk Test' to differentiate between moderate and vigorous activity for a person: being able to talk but not sing, indicates moderate activity, whilst not being able to talk without pausing, indicates more vigorous activity

## Levels of Cardiovascular Activity

**Sedentary:** from being not mobile to sitting unsupported. Activities involving increased movement including: standing, bending, pushing, pulling, Chair-Based Exercises\*\*.

**Light:** Household chores, yoga, Tai Chi

**Moderate:** Walking (mobility practice), cycling, shopping

**Vigorous:** Playing football, tennis, swimming, dancing

**Very vigorous:** Sprinting, skipping, uphill running



*Please note these levels are a general guide. For example, for one individual yoga may be light activity, whereas for another, it may be a vigorous activity. The same might also apply to walking. It is also important to note that each activity can be carried out at varying levels of effort.*

*\*\*See HCPA Chair-Based Exercises on page 26*

## Increased Strength

### Muscle Strengthening Activities:

- Ensure muscle and bone health, as these are interlinked. When the muscles pull on the bones, the bones respond by renewing themselves and maintaining or improving in strength<sup>(31)</sup>. These are most effective if all the major muscle groups of the upper and lower body are worked
- Maintain function in later life by delaying the natural decline in muscle mass (which leads to osteopenia and osteoporosis - a major factor in fractures sustained following a fall. Fractures typically occur from age 50+ years)<sup>(2)</sup>
- To strengthen, muscles need to be moved against resistance. This can be done by adding a load for the muscles to work against. As the muscles get stronger, and the movements become easier, the intensity of the resistance can be gradually increased by increasing the weight that is lifted. This is known as progressive resistance training, and research studies have shown that this is likely to be the best type of muscle strengthening exercise for bone strength<sup>(19, 31)</sup>
- A person should only be able to complete 8-12 repetitions with the weights or band before the muscle is too tired to do another repetition. In practice, the muscles will feel warm, and may feel shaky and that the last repetition is difficult to achieve<sup>(19, 31)</sup>
- It is important to use the correct technique for each muscle group to avoid injury to the joints\*
- Building up gradually, according to a person's own fitness level and muscle strength, is essential. 3 sets of 8-12 repetitions of each exercise is ideal<sup>(31)</sup>

### Examples of muscle strengthening activities:

- A weight in the hand
- Using elastic resistance bands
- Yoga
- Tai Chi
- Using the person's body weight in a squat or press up
- Standing for a few minutes every hour, for someone who is otherwise sedentary



Please note that the choice of activity is likely to vary according to the person's starting level of ability. Also, resistance needs to be gradually increased, as this will continue to achieve improvements in muscle strength.

### Specific muscle strengthening exercises could include\*:

For your upper body and spine:	For your lower body and hips:
Wall press	Squats
Bicep curl	Sit-to-stand
Tricep press	Hip abduction
chest press	Extension and flexion
Back extension	Lunges
Overhead press	Leg press
Deadlift	

\*Always consult a qualified Allied Health Professional (Physiotherapist (AHP)), or your Service's Chair-Based Exercise Instructor, who can refer to an appropriate person (for advice see page 28)

## Improved bone density

**Osteoporosis** means 'porous bone' and occurs when the body loses more bone than it is naturally replacing. Bones become weak/'brittle' and break easily as a result. Losing bone is a normal part of ageing, but sometimes the loss is faster than normal. Women are at more risk than men, and they lose bone rapidly in the first few years after menopause, particularly if their menopause begins before age 45, or if they have had their ovaries removed.

There are several factors which increase the risk of developing osteoporosis: a family history of osteoporosis, taking high doses of steroid medications for more than three months, other medical conditions such as: inflammatory conditions, hormone-related conditions or malabsorption problems, long-term use of medications that affect bone strength (such as anti-oestrogen tablets used for the treatment of breast cancer), eating disorders, and low calcium and vitamin D intake, low body mass index (BMI), heavy drinking or smoking, and a lack of regular physical activity. **Osteopenia** is the stage at which someone has a lower bone density than average for their age, but it has not yet progressed to the point of osteoporosis.

### Bone strengthening activities:

- Involve muscle strengthening, resistance exercises and weight bearing activities with impact, to stimulate growth and repair<sup>(31)</sup>
- Variety is important for bone health, and this can be achieved with different movements, directions and speeds, e.g. in an activity like dancing
- Short bursts of activity may be best, depending on the ability of the individual, e.g. mixing an activity like walking, with short bursts of brisk walking
- Reduce the effects of osteopenia and osteoporosis, and therefore reduce the risk of fractures<sup>(31)</sup>



### Examples of bone strengthening activities:

#### Weight bearing with impact

**Low Impact:** Walking, brisk walking, marching (even on the spot), stair climbing, gentle 'heel drops'

**Moderate Impact\*** Highland dancing, jogging/running, team/racket sports, hopping, skipping, low level jumping, vigorous 'heel drops'\*\*, stamping

**High Impact\*:** Jumping, skipping, hopping, running, sports such as: basketball, volleyball, track events, star jumps, tuck jumps, high level jumps

\*Always consult a qualified Allied Health Professional (Physiotherapist (AHP)), for guidance on specific exercises (see page 28)

\*\* Heel drops are where a person goes up on tip-toe then drops the heels down, which creates an impact with the ground

Standing, with the weight of the whole body pulling down on the skeleton. Weight bearing exercise with impact involves being on the feet and adding an additional force or jolt through the skeleton: anything from walking to star jumps<sup>(31)</sup>

## Increased balance



### Balance Training Activities:

- Involve a combination of movements that challenge balance
- Improve balance thereby reducing the risk of falls

### Examples of balance training activities:

*Any activity that challenges an individual's balance: (at a level safe and appropriate to the individual's specific needs and abilities). If walking challenges a person's balance, it is likely that their balance will improve by practising walking.*

*Specific balance exercises could include: Single leg stands, heel-toe stands, heel-toe walking, toe raises, heel raises (See HCPA's StopFalls brochure).*

Muscle strength, bone strength and balance each contribute independently to overall health and physical function but in combination they provide lifelong benefits<sup>(2)</sup>. See table below.

Different types of activities have different effects on each of these three components.

### The effects of different types of activities on muscle function, bone strength and balance:

Type of Physical Activity, Exercise or Sport	Improvement in muscle function	Improvement in bone health	Improvement in Balance
Running	★	★★	★
Resistance Training	★★★	★★★	★★
Aerobics, circuit training	★★★	★★★	★★
Ball Games	★★	★★★	★★★
Racquet Sports	★★	★★★	★★★
Yoga, Tai Chi	★	★	★
Dance	★	★★	★
Walking	★	★	
Nordic Walking	★★	Not known	★★
Cycling	★	★	★

★★★ Strong effect    ★★ Medium effect    ★ Low effect

*Adapted from the CMO Guidelines (2019)*

*Please note that the effects of different activities on balance are likely to vary according to the person's starting level of ability and the level at which they train.*

## Improved posture

- Any activity that requires a change from a supported sitting position (i.e. a position that does not challenge a person's balance) not only improves posture, it also has the potential to improve, balance and muscle strength
- Better postural alignment, in any position, promotes more efficient breathing
- Better posture is likely to mean better balance, which may help reduce falls<sup>(19)</sup>



## Increased sociability

- Engaging in physical activity and exercise may encourage people to interact with others and therefore to establish friendships
- Mixing with other people helps reduce feelings of loneliness and depression, through increasing a sense of connection and belonging to a group<sup>(12)</sup>
- Group exercises can foster a feeling of peer support and friendly competition, which may increase adherence to an exercise programme



## Increased flexibility

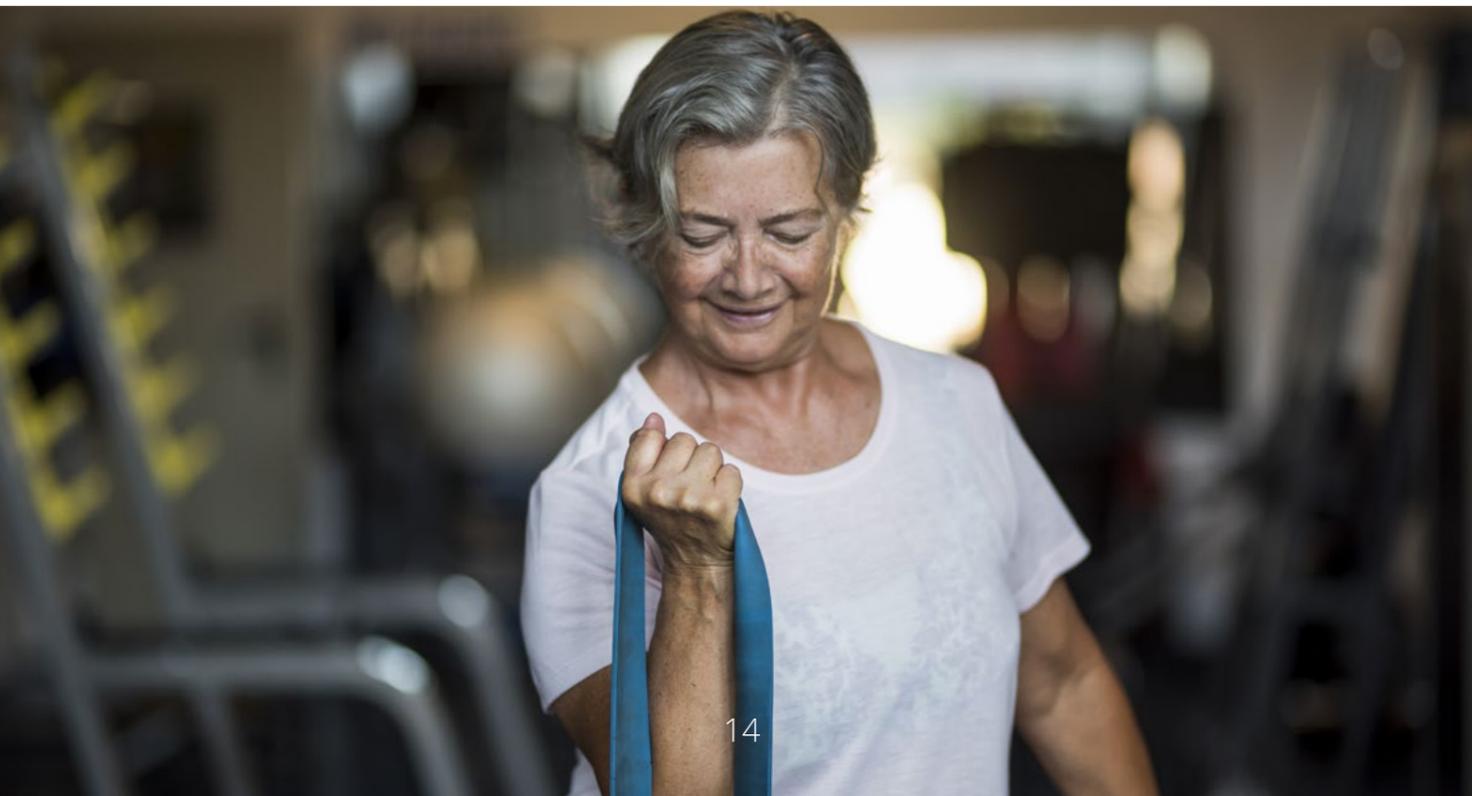
### Activities that improve flexibility

- Often involve exercises which also improve muscle and bone strength
- Involve movements that require the joints to move through their full range of motion, or at least through the available pain free range. This may be limited in some individuals
- Promote positive changes in terms of joint flexibility and allow muscles that are often in a shortened position to lengthen and stretch, as well as encouraging muscles to work more readily<sup>(2)</sup>
- Greater flexibility is likely to improve independence, which enables daily tasks, such as washing, dressing, cooking, cleaning and other activities of daily living, to be managed more easily<sup>(8)</sup>
- Having a greater freedom of movement in the joints and spine can aid in the management of degenerative conditions, such as arthritis, and can help reduce pain and stiffness



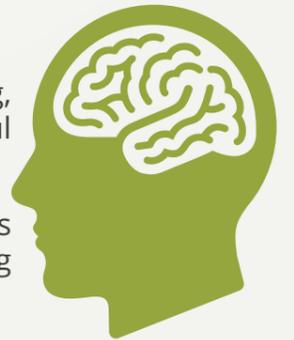
## Decreased fear of falling

- There is evidence to suggest that exercises that challenge certain components of fitness, such as balance and strength, can reduce the fear of falling<sup>(17)</sup>
- A person can experience improved levels of confidence in their physical abilities, which breaks down and replaces previous beliefs about their personal abilities<sup>(10)</sup>



## Improved mental well-being

- Physical activity promotes changes in the brain structure, including, reduced inflammation, neural growth, and the release of powerful endorphins that give that 'feel good' feeling
- It has been observed that engaging in bouts of 30 minutes of moderate activity per day halves the odds of experiencing depression<sup>(2)</sup>
- Physical activity can aid sleep, which may in turn impact upon a person's mental well-being
- Regular physical activity fosters an improved ability to learn. It also improves stress management and confidence, and even leads to improved social skills<sup>(2)</sup>
- Physical activity in groups may reduce feelings of social isolation and loneliness



# Your Care Setting

In this section we take a closer look at the physical ability levels of individuals you might expect in different care settings. In this way, we can look at providing the most appropriate physical activities relative to the individuals' personal abilities. These categories are highlighted by the CMO (2019) specifically for Older Adults <sup>(2)</sup>.

**Please note:** This is based on a general profile for individuals receiving care as, of course, individuals of all abilities can be found in ALL settings.

## ACTIVE

Active Older Adults are those who already participating in regular physical activity throughout the day, such as walking and going up stairs, and who may even have jobs or already participate in regular sports or recreational activity. It is advised that an exercise programme that includes resistance exercise, such as lifting weights or using resistance bands, plus a mix of activities aimed at improving strength, balance and flexibility, is undertaken by people who belong to this category. Activities such as Tai Chi, dance, and aqua-aerobics are ideal.

## IN TRANSITION

Individuals considered to be 'in transition' are experiencing a gradual decline in function, due to low levels of physical activity and too much time being sedentary. They may be overweight and have reduced muscle strength but are otherwise relatively healthy. It is advised that strategies to help manage fatigue are utilised initially, such as 'walk for a minute, rest for a minute'. These individuals should aim to gradually increase their fitness levels and confidence, to meet the guideline level of 150 minutes of moderate intensity exercise per week. Practising sit-to-stands, going up stairs and balance exercises may be the next step towards improving strength and balance, before adding activities such as brisk walking and exercise classes.

## FRAIL

The frail population are those who have very low levels of physical function, due to a myriad of degenerative conditions, such as osteoporosis, arthritis, dementia, or as a result of the ageing process itself. For this group, any increase in quantity or frequency of light activity, such as practising sit-to-stands to reduce time spent being sedentary, constitutes a benefit. Gradually increasing mobility (walking) practice and incorporating strength and balance activities into daily tasks is advised. It is also strongly advised that these people have a falls management programme. Please refer to a GP, Nurse or Allied Health Professional who can diagnose frailty using the Rockwood Clinical Frailty Scale. Also refer to HCPA StopFalls resources for more guidance.



## Motivating individuals in your care setting

It can be challenging to get individuals moving and participating in regular exercise, so it is important that we keep people motivated and engaged.

### Goal Setting

The process of goal setting serves as a focus point for personal change. Growth and change happen when we have an awareness of our wants and needs <sup>(12)</sup>.

The section on page 23 highlights some of the many benefits physical activity has to offer. A person might find that an 'absence' of one of these benefits could provide the motivation to make a positive change. Goals must always be recorded in a person's care plan.

# SMART Goals

## Specific

Goals need to be as clear and as concise as possible so that they can be easily understood by everyone. A goal might look something like this: Janet wants to be able to stand unassisted for 30 seconds. The standing unsupported is the specific part of the goal.

## Measurable

Targets need to have clear indicators, that allow progress and achievement to be tracked. In this example, we know we can use time as our measurement to record how long Janet stands for.

## Achievable

A goal needs to be realistic and attainable in order for the person to have a chance of success. It needs to be just beyond the boundaries of the person's current abilities but not too far so as to discourage them. This goal is good because Janet can currently stand unassisted for 10 seconds.

## Relevant

This ensures that the goal matters to the person; a question you might ask them is: "Is this a step towards what you want to achieve?". This goal is relevant because, if Janet can stand unassisted for 30 seconds, she will be able to pull up her trousers independently after using the toilet.

## Timed

Having a meaningful time frame is essential motivation for working towards a goal. A deadline can also increase commitment and focus, whilst giving a measurable end date by which the goal will be achieved.

# Communication Strategies

## Active listening

- ✓ Concentration
- ✓ Attention
- ✓ An open mind
- ✓ Resisting the natural tendency to jump to conclusions

## Before the task - Communication to motivate a person to want to do a task

### Using Verbal Communication

- ✓ Use open questions such as 'How are you?' Rather than, 'Are you okay?'
- ✓ Use closed questions if someone finds an open question too complex
- ✓ Give the correct and all the information about the activity that the individual needs
- ✓ Try repeating and rephrasing
- ✓ Avoid slang words and acronyms as they may prevent understanding
- ✓ Think about tone and pace; speak clearly and slowly. Allow time for the individual to respond
- ✓ Clarify messages so that it shows you understand what is being said 'So just to check...'
- ✓ Show empathy so the individual knows you understand their feelings

### Using Non-Verbal Communication

- ✓ Eye contact is a way of building a connection with someone. Long unbroken eye contact shows you are actually listening to someone
- ✓ Posture can show feelings, sitting forward can show interest
- ✓ Physical closeness can show reassurance. Getting too close may feel uncomfortable. It is important to judge what the person needs by their response or by asking them
- ✓ The environment can affect how people communicate. Think about the noise, lighting and privacy for example
- ✓ Facial expressions and body language can indicate how the individual is feeling. It is important to observe the person for signs of distress
- ✓ Use light touch, where needed. Remember, with physical cues '**less is more**'

## During the task - Communication to facilitate the best outcome

- ✓ Use verbal cues that are concise, short and sharp. Remember *timing* your verbal cue with the movement is really helpful.

# Risks, Barriers and Considerations

**There is enough evidence to categorically state that the benefits associated with physical activity outweigh the risks of not being active.** Fear of injury, or of making an existing condition worse, can often be a barrier to undertaking physical activity, but there is little evidence to suggest that physical activity is harmful if it is carried out at an intensity and in a manner appropriate to the individual's current level of ability. Starting at a low intensity, and gradually building up the frequency, intensity or duration of the physical activity, is the safest way for an individual to progress. Seeking advice from a trained professional, such as a GP or Physiotherapist, is of utmost importance if there are any doubts about an individual's health or safety when they are participating in physical activity<sup>(20)</sup>.

## Specific Groups

Older adults with frailty, moderate to severe dementia, a history of vertebral fractures or regular falls, may initially require any new exercise to be prescribed and supervised by a trained professional, to ensure that the exercises are appropriate and safe, and that they do not cause injury.

**Disabled adults:** It is a myth that physical activity is harmful for individuals with disabilities. It is, however, important that any activity is agreed, safe and appropriate to the individual.

## Specific Conditions

**Postural Hypotension (particularly in individuals where this is already diagnosed):** This causes a drop in blood pressure, which results in dizziness (and potentially fainting) on moving from a sitting to a standing position. See tips on page 22.

**Hip or other lower limb joint replacements:** Movement may be painful or restricted. With some hip replacements there is a risk of dislocation. For example, if the individual sits on a low chair (that puts the angle at the hip at less than 90 degrees) or if they cross their legs. This should be documented in their post-operative instructions. Advice should be sought from a qualified Physiotherapist if there is ANY uncertainty regarding the inclusion/exclusion criteria for certain exercises.

**Cognitive impairment:** This can make following instructions very challenging, so it is important to try breaking up tasks into smaller, simpler steps to make them easier to manage. Using short, clear instructions may also help reduce confusion. Sensory cues, such as visual cues, tactile and auditory cues, may also help the person understand the instructions given.

**Osteoarthritis:** Painful, swollen joints are the main symptoms associated with osteoarthritis. Whilst exercise is thought by many to reduce these symptoms, it is important that:

1. the type of exercise and the intensity of the activity is suitable for the individual
2. the joints are in good alignment (not twisted) wherever possible, so that the symptoms are not exacerbated. Including a gentle warm-up before more intense exercise can help to minimise pain, as it helps to improve circulation, and reduce the stiffness that is often felt as a result of prolonged inactivity. Appropriate timing of medication can also be extremely helpful. Seek advice from a qualified Physiotherapist if there is uncertainty regarding inclusion/exclusion of a certain exercise.

**Osteoporosis, osteopenia, frailty:** For someone with a loss of bone density, any physical activity that involves a risk of falls requires careful consideration. It is crucial to provide a safe environment, an environment that has plenty of support options available, including sufficient numbers of staff to hand, and which is free of trip hazards, such as carpets, wires, and obstacles. It is important to monitor and correct an individual's postural alignment where possible, and to allow additional transition time to move from one exercise position to the next (e.g. in a Postural Stability Class).

## Tips - Engaging a person with cognitive impairment

Just because someone is living with, for example dementia, it does not mean they cannot engage in exercise. Try the following tips below on how to engage someone living with a cognitive impairment:

- ✓ Give clear instructions
- ✓ Use verbal and non-verbal instructions
- ✓ Use eye contact appropriately
- ✓ Try using music that the person likes
- ✓ Use fun games within the session to maintain high levels of engagement including, ball, sensory and reminiscence games



## The following general tips may also help when considering physical activity:

- Consider the specific conditions that a person may have. Look up conditions. Ask questions, and discuss issues with health professionals (such as GPs, Physiotherapists, Occupational Therapists and Specialist Nurses) to expand your knowledge
- Always ensure appropriate referrals are made to a qualified Allied Health Professional (a Physiotherapist), for prescription of exercises where necessary
- Monitor the individual for signs of pain, adverse effects, or deterioration, and stop/report/refer accordingly
- Ensure pain relief medication is timed appropriately
- Ensure, as far as possible, that the individual's joints are in good alignment when participating in an exercise\*
- Ensure risk assessments are in place, and that they are followed and regularly reviewed
- Ensure that the Mental Capacity Code of Practice <sup>(14)</sup> is followed and that:
  - ▶ Appropriate information is given to individuals for individuals to make an informed choice where possible
  - ▶ Capacity to make decisions about physical activity is assessed and documented
  - ▶ Where the individual lacks capacity to make decisions about their physical activities, Best Interest Decisions (including strategies that are known to positively engage the individual) are agreed, documented, and followed
- When practising standing, be aware of potential **Postural Hypotension**, (particularly in individuals where this is already diagnosed). It is extremely important to:
  - ▶ Check, on standing, that the individual is steady and ready to continue
  - ▶ Encourage marching on the spot to improve blood flow back up to the brain
  - ▶ Avoid moving forwards if in ANY doubt
  - ▶ Ensure a risk assessment is in place and that it is followed. For an individual who tends to start to step forwards before they are 'steady', this may include three members of staff, one who needs to be ready with a wheelchair behind

\*Refer to HCPA's Enabling Care Approach – Posture and Positioning Module for more details

# Opportunities for Physical Activity

*"If physical activity were a drug, we would refer to it as a miracle cure, due to the great many illness it can prevent and help treat."*

**UK Chief Medical Officers, 2019**



# Daily Movement

Evidence-based

## Who & Where?

Daily movement is particularly important for people who are in transition into lower levels of physical activity, and who are unable to participate in specific types of exercise, as this is increasingly important for managing frailty.

### IN TRANSITION

- Nursing Homes
- Residential Homes
- Own Homes

### FRAIL

- Supported Living
- Community Setting

## Focus & Impact

The focus of daily movement is to reduce the amount of time that individuals spend sitting and lying down. Tasks such as rising from a seated position, sit-to-stand transfers from bed to chair, and mobility practice, should be encouraged<sup>(16)</sup>. In addition, encouraging individuals to be more independent during personal care, such as engaging them in rolling or repositioning in bed, or, getting a person to reach for and use their TV remote rather than doing this for them, undoubtedly has a positive impact upon that person's daily movement.

### Increased

- ▲ Confidence
- ▲ Mobility
- ▲ Function
- ▲ Well-being
- ▲ Independence

### Decreased

- ▼ Stiffness
- ▼ Falls
- ▼ Fear of falling
- ▼ Fractures
- ▼ Depression

## Skills

All family members, staff and friends, are advised to encourage the people they care for to move as much as possible throughout each day\*. No additional qualifications are required to promote general movement, mobility, and being more independent during personal care whenever possible.

See HCPA's *Enabling Care Approach Resource* for additional tips

\*Always ensure the Care Plan, Risk Assessments and safe Moving and Assisting Practices are followed, and that they are reviewed and updated accordingly

## Activities of Daily Living

Given that "some movement is better than none", as the CMO guidelines state, encouraging participation in personal care tasks, such as face washing, hair brushing, teeth brushing, and dressing is vital in helping someone who is sedentary for most of the day, to increase their level of physical activity<sup>(10)</sup>.

## Sit-To-Stand

Break up periods of sedentary behaviour by practising standing every hour\*. This uses most major muscle groups, helps reduce the risk of pressure sores, and promotes healthy bone strength through weight bearing. It helps relieve stiffness and increases confidence. It also helps to maintain the function of all the body systems including the respiratory, circulatory, digestive and nervous systems<sup>(11, 27)</sup>.

## Mobility Practice

For those who are mobile, increasing distance walked, and/or frequency of walking practice, as well as practising stair climbing, will increase levels of physical activity\*<sup>(8)</sup>.

## Enabling Tasks

Encourage simple everyday tasks and hobbies, such as tidying around the house, gardening, getting a cup of tea or coffee, cooking, walking in the park, doing arts & crafts, playing games and creating music<sup>(7, 10)</sup>.

See HCPA's *Enabling Care Approach Resource* for additional tips

## Case Study



### Margaret - 77

Margaret is living with Multiple Sclerosis and has not had any falls in the last year. She has good days and bad days; there are times where she is unable to move her legs, but other times, she can transfer from her wheelchair confidently.

Occasionally frustrated, Margaret set a personal goal to become more independent, even on her bad days. Her actions included breaking up time spent sitting by practising the movements that make up sit-to-stand, such as lifting her bottom off the chair.

By incorporating this into her daily routine, the care staff have commented on how she needs far less assistance to do sit-to-stand transfers. This has significantly decreased Margaret's dependence. With this newly rediscovered independence, she is continuing to work with the staff, friends and family to be able to re-learn other tasks.

\*Always ensure the Care Plan, Risk Assessments and safe Moving and Assisting Practices are followed, and that they are reviewed and updated accordingly

# Chair-Based Exercise

Evidence-based

**These exercises can only be taught by a person who has completed the necessary training.\***

Chair-Based Exercise offers the opportunity to promote health and well-being when individuals find it difficult to do exercises in standing. This includes a variety of evidence-based seated exercises that can be adapted to suit a person's needs, abilities, and goals.

## Who & Where?

Everyone who is able to maintain a seated upright posture can participate in Chair-Based Exercises. Due to the likelihood of the participants having complex needs, small groups of 6-8 are most effective, as they allow each person extra support, and at least some 1:1 time from the tutor or other members of staff who may be assisting the exercise delivery.

### IN TRANSITION

- Nursing Homes
- Residential Homes
- Own Homes

### FRAIL

- Supported Living
- Community Setting

## Focus & Impact

Chair-Based Exercise has been shown to have a positive impact on maintaining and promoting independence, functional capacity, and joint flexibility in older people <sup>(29)</sup>.

### Increased

- ▲ Strength
- ▲ Flexibility
- ▲ Confidence
- ▲ Independence
- ▲ Well-being

### Decreased

- ▼ Stiffness
- ▼ Joint pain
- ▼ Isolation
- ▼ Depression

## Skills

Your organisation's internal staff can complete the HCPA Level 2 Chair-Based Exercise Instructor Course. This will not only ensure that the level of exercise delivered is safe and evidence-based, it is also more financially viable and sustainable than hiring an external instructor.

*\*Activity/Engagement/Physiotherapy Support Facilitator staff are best suited to this role. Refer to HCPA's Physiotherapy Support Facilitator and Enabling Care Approach Training for more details*

## Appropriate Chairs

For Chair-Based exercises use chairs without arms as opposed to armchairs wherever possible, as, because they are less supportive, they can help encourage independent sitting balance. Large armchairs or sofas are not suitable.

## Resistance Bands

Resistance bands are necessary for the strength component of Chair-Based Exercise. These are available in a variety of tensions to meet the different abilities of the participants <sup>(19)</sup>.

## Care Plan Documentation

Ensure that care plans for people who participate in planned exercise or physical activity are regularly reviewed. Risk assessments and progress reports should also be routinely updated in the care plan.\*

Documentation should include a capacity and consent to exercise form, a physical activity readiness questionnaire (PAR-Q form), and a formal risk assessment.

## Case Study



### Janice - 72

For Janice, living in a Supported Living Community can still present daily challenges. Janice feels her weekly participation in balance exercise classes has made tackling her daily environment (such as going up and down the stairs and taking trips to the local supermarket), much easier.

Janice remarks on how her confidence, balance and strength have increased through exercising in a controlled and supervised class setting.

Keen to socialise with her fellow neighbours, Janice looks forward to every weekly class as an opportunity to get out of the house, to engage in 'feel good' exercises, and celebrate her independence in the company of friends.

*\*Always ensure the Care Plan, Risk Assessments and safe Moving and Assisting Practices are followed, and that they are reviewed and updated accordingly*

# OTAGO & Postural Stability Classes

Evidence-based

**These exercises can only be taught by a person who has completed the necessary training\*.**

Community OTAGO and Postural Stability Classes offer exercises that are performed in a standing position. These are very specific, evidence-based exercises that, because they *challenge* balance, are proven to *improve* balance<sup>(30)</sup>.

## Who & Where?

These exercises are suitable for individuals who have a fear of falling, a feeling of instability, a history of falls, or low bone density (osteopenia or osteoporosis)<sup>(3)</sup>. Participants must be able to stand unsupported for a minimum of 30 seconds.

### ACTIVE

- Community Setting
- Own Homes

### IN TRANSITION

- Supported Living
- Residential Homes

## Focus & Impact

OTAGO and Postural Stability Classes are aimed at people who are at risk of falls. Attention is focused on developing functional skills associated with reducing falls risk, including balance, strength, flexibility, and gait (walking pattern)<sup>(13)</sup>. Individuals who participate in Postural Stability Classes also benefit from learning 'backwards chaining'. This is a sequence of exercises that involves practising the component movements involved in getting up from the floor. The aim of this is to enable people to get up from the floor after a *future* potential fall<sup>(38, 39)</sup>.

### Increased

- ▲ Balance
- ▲ Bone Density
- ▲ Strength
- ▲ Flexibility
- ▲ Confidence

### Decreased

- ▼ Fear of Falling
- ▼ Depression
- ▼ Isolation
- ▼ Depression

## Skills

Having completed the Chair-Based Exercise Instructor Course at QCF Level 2, a staff member can move on to the Level 3 OTAGO qualification. To become a Postural Stability Instructor (PSI), they can complete the Level 4 Postural Stability Course.

*\*Activity/Engagement/Physiotherapy Support Facilitator staff are best suited to this role.*

## Appropriate Chairs

Use high backed sturdy chairs wherever possible, as these are easier to use for a support in standing, as well as being easier to manoeuvre into a suitable position for the exercises.



## Resistance Bands

Resistance bands are necessary for the strength component of OTAGO & PSI. These are available in a variety of tensions to meet the different abilities of the participants<sup>(33)</sup>.

## Ankle Weights

Ankle weights can be used to increase resistance when performing leg exercises. They are a progression which can provide even greater improvements in strength, and therefore must only be used when appropriate for the individual.

# Specialist Health Intervention

Evidence-based

If an individual is struggling with physical activity, has recently deteriorated, or has an injury that impacts upon their function, it may be appropriate to refer them for an assessment by a professional who is a specialist in health intervention. This is likely to be an Allied Health Professional (AHP) such as a Physiotherapist or an Occupational Therapist, and in some cases a Chair-Based Exercise Instructor.

## Who & Where?

Any adult with a neurological condition, including multiple sclerosis, stroke, brain injury and Parkinsons (to name a few), or who has poor balance or mobility, or problems with moving and positioning. The Community Teams, in order to be as efficient as possible within the constraints of time and resources, will focus primarily on individuals whose function or exercise tolerance has recently deteriorated.

The Community Teams have specialist services and because they often have waiting lists, they have criteria which determine how urgent their response to the referral needs to be. It is important that you try to explain the specific reason for your referral as comprehensively as possible. Sometimes, it may help to speak to one of the therapists before sending your referral.

Please consult your GP for referral options or contact the Integrated Community Team, (Hertfordshire Community NHS Trust) directly.

### Referrals are accepted from:

- GPs
- Hospitals
- Adult Care Services
- Other Health Professionals

Referral is via the "Single Point of Contact" (SPOC) Tel: 0300 123 7571

### East and North GPs use EMIS and SystmOne:

- [enhertsccg.nhs.uk/hct-ipa-referral-form](http://enhertsccg.nhs.uk/hct-ipa-referral-form)

### Non-GP referrers use the generic form found below:

- [East and North ICT referral form](#)
- [East and North ICT referral form - Stort Valley and Villages](#)

**ACTIVE**   **IN TRANSITION**   **FRAIL**

- Nursing Homes
- Residential Homes
- Own Homes
- Supported Living

## Focus & Impact

Any individual who has recently been in hospital, been unwell, fallen, recently deteriorated for any reason, or who has sustained an injury that impacts upon their function. Also, if there is any concern about the suitability of an individual's exercise physical activity programme, or functional ability, the appropriate Specialist should be involved.

### Increased

- ▲ Mobility
- ▲ Strength
- ▲ Flexibility
- ▲ Function
- ▲ Independence
- ▲ Well-being

### Decreased

- ▼ Disability/Disease Progression
- ▼ Joint Pain
- ▼ Stiffness
- ▼ Falls Risk

## Skills

**Physiotherapists** are qualified to help and treat people with physical problems caused by illness, injury, disability or ageing. They see human movement as central to the health and wellbeing of individuals, and aim to identify and solve problems in order to maximise movement and function. They will work with individuals or the people who care for the individuals through physical activity, exercise and rehabilitation interventions to achieve functional outcomes which promote health, prevent injury and disability, and which develop, improve, sustain or restore the highest possible level of independence <sup>(36)</sup>.

**Occupational Therapists** are qualified to assess and provide help and information about equipment and adaptations that may be beneficial. They will also work with individuals to help them achieve a fulfilled and satisfied state in life through purposeful activity or interventions, designed to achieve functional outcomes which promote health, prevent injury or disability, and which develop, improve, sustain or restore the highest possible level of independence.

**Other Specialists** are qualified to give advice on specific condition management. These include: Specialist Respiratory Nurses, Specialist Multiple Sclerosis Nurses, Specialist Parkinsons Nurses, Specialist Diabetes Nurses, Speech and Language Therapists (for difficulties with swallowing and communication), Rehabilitation Consultants, and Neurological Consultants, to name a few.

## Safe Exercise

Specialist intervention is a tailored approach, which is dependent upon on the comprehensive assessment of a person's individual abilities, circumstances and goals. Physiotherapists, for example, prescribe exercise and treatment programmes that are evidence-based, safe, and specific to the needs of each individual. A person who is not qualified and competent to prescribe exercise should not attempt to do this <sup>(30)</sup>.



## Non-Invasive/Non-Pharmacological Treatment

Advice or intervention from a Specialist may be an excellent option that can provide effective management of a multitude of problems, often without increasing medical intervention.

## Pre-Surgery and Post-Surgery

Sometimes surgery is unavoidable. Physiotherapy is essential to aid a speedy and effective recovery after surgery. Pre-operative physiotherapy can also be very beneficial in maintaining strength and function prior to surgery.

## Case Study



### John - 81

Living with arthritic knee pain had made simple tasks such as walking, very painful for John. This was having a knock-on effect on John's quality of life. After consulting a Physiotherapist, John was given the resources and a plan of tailored exercises to manage and, alleviate his knee pain.

The staff who care for John are consequently aware of John's needs and have been shown how to help John with the exercises. They now proactively take the time to encourage him to do his exercises. John therefore continues to make significant progress and is able to walk further with less pain.

# Additional Resources

## Live Chair-Based Exercise Classes

HCPA have launched live chair-based exercises classes over Zoom, to help reach people in their homes in times such as those in the COVID-19 lockdown. These are 30-minute sessions that promote healthy joint movements, whilst challenging the cardiovascular system. This is a great opportunity to keep people moving and to reduce sedentary behaviour.

### Find out more:

T: 01707 536020

W: [hcpastopfalls.info/exercise](http://hcpastopfalls.info/exercise)

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## Tai Chi

Tai Chi primarily focuses on breath work, while incorporating gentle, flowing movements. The low-impact nature of Tai Chi offers a light activity alternative while still challenging balance and posture<sup>(25)</sup>. This is suited for individuals who have not had a fall, but have a fear of falling, or who have instability or balance concerns. Tai Chi related certifications are required to deliver these classes.

### Find out more:

T: 01707 536020

W: [hcpa.co.uk](http://hcpa.co.uk)

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## Chair Yoga

Chair Yoga offers a similar experience with more emphasis directed towards flexibility, mobility, and postural strength. Please seek out awarding bodies supported by the Yoga Alliance or ASDAN.

Yoga exercises encourage optimal breathing paired with movements and poses, designed to open up closed posture, tight muscles, and stiff joints. Smaller groups of 4-6 are suggested as some movements may prove more challenging to follow. Chair Yoga may be suitable for some individuals but not others. Chair Yoga trained instructors will be able to advise on this.

### Find local Chair Yoga opportunities near you:

W: [hertfordshire.gov.uk](http://hertfordshire.gov.uk)

## Exercise Referral

These are a great way for people with long-term health conditions to increase physical activity levels and improve health. Sessions are supervised by qualified instructors who understand the needs of people with long-term health conditions.

Speak to the GP who can advise about any suitable opportunities within your community.

## Hertfordshire Health Walks

Services in Hertfordshire offer the opportunity for free and regular walks around the county. These walks are guided and supervised by trained volunteers. These walks are graded from 1st steps (20 minutes) to grade 4 (90 minutes). They are designed to increase the cardiovascular health and endurance of the participants, and are excellent for improving lung and heart function while the person enjoys the country scenery.

There are currently walks taking place throughout the week in Dacorum, East Herts, Welwyn Hatfield, Watford & Three Rivers, St Albans & Harpenden, Hitchin & Letchworth, and Hertsmere.

### Find out more:

W: [hertfordshire.gov.uk](http://hertfordshire.gov.uk)

W: [carerssteppingout.co.uk](http://carerssteppingout.co.uk)

## Intergenerational Practice

This practice is vital to the ageing population today, as young people and Older Adults are becoming increasingly more disconnected because of the breakdown of community and because certain services can only work with specific groups. HCPA has put together an intergenerational guide to help you through the process of setting up links with an intergenerational group.

The main aim of intergenerational practice is to promote well-being by building on relationships, shifting negative attitudes, and increasing community cohesion between the young and old through Chair-Based Exercises and activities.

### Find out more:

T: 01707 536020

W: [hcpa.info](http://hcpa.info)

## Para Dance UK

The governing body of Para Dance UK aims to promote dance across the country as an inclusive sport and leisure activity. At the local level, there are groups across the UK that meet regularly to learn and enjoy dancing. Para Dance UK follows the ethos “Everyone Can Dance” in the dance style they want to. Inclusive dance opens up many doors to people as a fun, recreational activity.

Regular dancing is great for losing weight, maintaining healthy bones, improving posture and muscle strength, increasing balance and co-ordination, and tackling stress. One of the best things about dancing, is that while you’re having fun moving to music and meeting new people, you are getting all the health benefits of a good workout.

### Find out more:

[paradance.org.uk](http://paradance.org.uk)

## Herts Disability Sports Foundation

Herts Disability Sports Foundation (HDSF) provides open sessions that are available to anybody with a disability, and their siblings or friends. These sessions include archery, Easy Rider adapted cycling, ‘doughnutting’, fishing, and bell boating.

Also, HDSF run activities from a variety of facilities across Hertfordshire. Activities include archery, basketball, Boccia, dance, Easy Rider adapted cycling, fitness and mobility, team building activities, and wheelchair basketball.

### Find out more:

T: 01462 600193

E: [ros@hertsdisabilitysportsfoundation.com](mailto:ros@hertsdisabilitysportsfoundation.com)

W: [hertsdisabilitysportsfoundation.com](http://hertsdisabilitysportsfoundation.com)

Who can help?	What they do:	How to contact:
<b>Hertfordshire Care Providers Association (HCPA)</b>	Sharing best practice in care through partnership and information, advice and falls prevention training	<a href="http://hcpastopfalls.co.uk">hcpastopfalls.co.uk</a> <a href="mailto:stopfalls@hcpa.co.uk">stopfalls@hcpa.co.uk</a>
<b>Online shops</b>	Resource for resistance bands and ankle weights	-
<b>Hertfordshire Independent Living Service (HILS)</b>	Provides a range of services to help older and vulnerable people stay happy, healthy, & independent	<a href="http://hertsindependentliving.org">hertsindependentliving.org</a> 0330 2000103
<b>Hertfordshire County Council</b>	Council connections, information, and resources	<a href="http://hertfordshire.gov.uk/home">hertfordshire.gov.uk/home</a> 0300 1234040
<b>Herts Help</b>	Network of community organisations in Hertfordshire for information and resources	<a href="http://hertshelp.net">hertshelp.net</a> 0300 1234044
<b>NHS Live Well</b>	Guidance on Nutrition, Hydration, and Physical Activity	<a href="http://nhs.uk/Livewell/Goodfood/Pages/Healthyeating">nhs.uk/Livewell/Goodfood/Pages/Healthyeating</a>

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