

Active travel and healthy ageing

The benefits of physical activity throughout the life course

INFORMATION SHEET FH08

“The increased risk of ill-health through inactivity begins in childhood but the effects may not be realised until older age. The Government’s approach is to enable people to lead active lifestyles at all stages of their lives, to help ensure healthy ageing.

The adoption of a physically active lifestyle can add years to life for previously inactive older people and significantly enhance mobility and independence. Physical activity, even for very frail older people, can help build strength, improve mobility and balance, and reduce the risk of falling.

Activities such as walking and cycling, in addition to improving physical health, can increase the sense of well being and promote social interaction, which in turn improve quality of life.”

**Professor Ian Philp,
National Director for Older People,
Department of Health**

Introduction

People are living longer and enjoying longer periods of retirement – although as physical activity levels fall life expectancy may actually start to reduce again. At the same time, the proportion of the population in work is shrinking, and the economy may come

under pressure to service the needs of this ageing society. Will older people be able to contribute, later into life? Will we become a nation of active older people enjoying a healthy and pleasurable third age, or increasingly unhealthy in an economy struggling to cover the costs of our care? One thing we do know is that incorporating healthy activity into our lifestyles can make a positive contribution.

We are getting older

The average age of Europeans is rising. At present, 20% of the European population is 60 years and older; by 2030 approximately one in three people will belong to this age group⁽¹⁾. This demographic trend has consequences across all areas of public policy: a declining workforce is supporting a growing older population; pension funds are coming under increasing pressure; it may be necessary for people to work later into life (and to be fit enough to do so)⁽²⁾. It also has consequences for the planning of healthcare budgets and services - in the UK, older people comprise 75% of users of the NHS⁽³⁾.

Successful ageing – enjoying optimum quality of life and minimising disease and other risks – is largely determined by individual lifestyle choices rather than genetic inheritance, and few factors contribute as much to



SCOTTISH EXECUTIVE

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Active Travel works with policy-makers and practitioners to promote walking and cycling as health-enhancing physical activity. Sustrans is the UK’s leading sustainable transport charity and works on practical projects to encourage people to walk, cycle and use public transport to benefit health and the environment.

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successful ageing as having a physically active lifestyle⁽⁴⁾. Lifestyle choices, in turn, are largely determined by environmental factors: physical, cultural, economic and social. As our populations age, it becomes even more important to ensure that they have the opportunity to live a healthy lifestyle, including adequate physical activity.

The importance of physical activity

Physical activity levels decline as we age. In England for example, only 17% of men and 13% of women aged 65-74 reach the recommended levels of physical activity⁽⁵⁾ - adults should aim for at least 30 minutes of moderate activity on five or more days of the week⁽⁶⁾.

Physical activity not only contributes to well-being, but is also essential for good health. People who are physically active reduce their risk of developing major chronic diseases by up to 50%, and the risk of premature death by about 20-30%⁽⁶⁾. Physical activity is associated with benefits such as maintaining ideal body weight and reducing the risk of health problems associated with being overweight and obese. From the perspective of healthy ageing, it also reduces the risks associated with a decline in physical function and mobility.

A study involving men from Italy, Finland, and the Netherlands showed that even in old age among relatively healthy men, those with the highest levels of physical activity were associated with a decreased risk of disability 10 years later⁽⁷⁾. This corresponds with the general finding that the more physical activity undertaken the greater the health benefits⁽⁸⁾.

It is not necessary to undertake vigorous activity; less intensive activities such as walking and household work are enough to slow

down mobility decline⁽⁹⁾. Daily activities have a protective value and are closely linked with a longer life span; elderly people who are regularly physically active, not necessarily through formal exercise, are more likely to live longer than elderly people who are not physically active⁽¹⁰⁾.

Prevention of falls and osteoporosis

Physical activity has a preventative value in relation to falls. Falls and injury may lead to a spiral of inactivity and decline that takes older people close to or below the critical "thresholds" of performance necessary for everyday activities⁽¹¹⁾. Regular physical activity is potentially the only method that may prevent osteoporotic fractures, by protecting against both osteoporosis⁽¹²⁾ and falls, and can also be enjoyable and sociable⁽¹³⁾, which makes it likely that people may incorporate it into their daily lives. Moreover, consistent exercise patterns over the long term in physically active seniors (age 60+) are associated with about 25% less musculoskeletal pain than reported by more sedentary seniors⁽¹⁴⁾.

Being physically active is particularly important as people age. Postmenopausal women have a specific need to continue regular, rhythmic, weight-bearing activity to preserve bone mineral density and the integrity of muscle function, and maintain the physical confidence that is essential to the avoidance of falls and fractures⁽¹⁵⁾.

Mental health

The psychological benefits of physical activity are also well-documented⁽¹⁶⁾. People who are physically active, or have higher levels of cardio-respiratory fitness, have enhanced moods, higher self-esteem, greater confidence in their ability to perform certain tasks, and better cognitive functioning compared to people who are less physically fit or sedentary. Physical activity, including moderate exercise programmes



involving brisk walking, may be particularly effective for the treatment of depression, anxiety and other mood states⁽¹⁷⁾⁽¹⁸⁾.

Walking is associated with a reduced risk of dementia⁽¹⁹⁾, and physical activity helps maintain cognitive performance into old age. Long-term regular physical activity, including walking, has been associated with significantly better cognitive function and less cognitive decline in older women⁽²⁰⁾. This includes a decreased risk of dementia and Alzheimer's disease, again particularly among older women⁽²¹⁾.

The earlier the better... but it is never too late

It is of course most beneficial to establish a physically active lifestyle from childhood and carry it on throughout the life course. This will reduce the risks from non-communicable diseases such as diabetes and heart disease, the origins of which begin in early childhood⁽²²⁾. Particularly important for older people is that physical activity increases bone mineral density from youth into early adult life, peaking around age 30 after which it starts to decline⁽²³⁾.

By middle age, physical activity levels are predictive of long-term mortality, serious events such as myocardial infarction and hip fractures as well as quality of life⁽²⁴⁾.

However, it is important to note that it is never too late to start undertaking physical activity. Lifestyle changes that incorporate exercise later in life can improve physical and mental functioning, benefiting the quality and duration of life across all sub groups of the older population⁽²⁵⁾. For example, becoming physically active after the age of 40 is associated with a 55 percent reduction in the risk of developing heart disease⁽²⁶⁾.

The role of active travel

Interventions to promote physical activity often focus on the promotion of sport and active recreation, rather than lifestyle physical activity such as walking and cycling. However, research among newly retired people indicates that the word 'sport' is not received well, that both men and women place more value on 'active chores' than on 'exercise', and that gentler activities such as walking are more acceptable; respondents valued the social aspect of active living, substituting it for the social aspects of work⁽²⁷⁾.

Walking and cycling for short journeys can be part of everyday life for many people as they age. Both activities improve muscle strength, contribute to reducing the risk of falls, and offer all the benefits of physical activity. Walking is the most common form of physical activity for older people, playing an important function in meeting local travel needs, including participation in economic activities as well as social networks.

Unlike other forms of physical activity, walking shows very little, if any, decline in middle age. It is a year round activity, self-reinforcing, and habit-forming, an ideal start up activity for inactive elderly people, and can bring a bonus of independence and social well-being⁽²⁸⁾. The implementation of neighbourhood-based walking programmes of low to moderate intensity has led to increased levels of physical activity among older residents⁽²⁹⁾. Walking is manifestly a sensible, relatively risk-free form of activity for the elderly⁽²⁸⁾.

There is also evidence of a dose response in walking: studies of older women show that walking duration and pace have an inverse relationship to cardiovascular disease - the longer the duration and faster the pace, the greater the benefits⁽³⁰⁾.

More than half of all UK visits to the post office, one third of visits to doctors'



surgeries and a quarter of trips to day centres and work by older people are made by walking, and to a smaller extent by cycling⁽³¹⁾.

In other European countries with better infrastructure and a more positive culture for cycling, many adults continue to cycle into old age: for example, 25% of all trips for elderly people in The Netherlands and 7% in Germany⁽³²⁾.

The importance of activity-friendly environments

Research suggests that older people's environments may influence their lifestyles, and so their health; this includes the usability and attractiveness of the neighbourhood for physical activity. Problems of traffic, noise, crime, litter, lighting and public transport service quality have been associated with functional loss - such as being able to climb stairs - compared with non-problem neighbourhoods⁽³³⁾. People from all age groups are less inclined to walk through unattractive neighbourhoods⁽³⁴⁾⁽³⁵⁾. In contrast, it is claimed that living in areas with walkable green space positively influences the longevity of urban senior citizens independent of their age, sex, marital status, baseline functional status, and socio-economic status⁽³⁶⁾.

A study of the everyday mobility of elderly people in Bonn, Germany, found that those living in the central district had better active travel infrastructure than residents of the urban fringe. Walking was the key mode of travel for short leisure trips (less than 2 km) along with public transport. People living in other locations were more likely to withdraw from the public to the private sphere as they grew older⁽³⁷⁾. Shopping and other facilities located within a walkable distance of residential areas⁽³⁸⁾ have been positively associated with attractiveness and safety and with

increased levels of walking among older adults⁽⁴⁾⁽³⁹⁾.

Analysis of 2005 usage of the National Cycle Network shows that six out of ten people over 60 using the Network report higher levels of physical activity thanks to its availability, a quarter claim to be walking or cycling more than they were one year previously, and one in five plan to be more active in future. 16% of cyclists over 60 on the Network describe themselves as novices, suggesting a fertile market for cycling promotion among older people.

Supporting older people to be active

Assuming that environmental factors do not rule out an active lifestyle, positive results can be obtained by projects which encourage and support older people to increase their activity levels.

Wheels of Change

Wheels of Change is a project run in Bristol by Life Cycle UK, offering cycle training to people from groups under-represented in cycling, including people aged 55 or over, from Bristol's black and ethnic minority communities, with a health condition which would benefit from gentle exercise, on a low income or unemployed.

"I have begun to lose weight, so my diabetes is better.... When I'm out cycling it's time for me to relax, get some exercise and forget my responsibilities as a full-time carer. My health has started to improve and I now feel there is light at the end of what was a very dark tunnel..."

Female participant aged 60

"My fitness has increased so I find it easier to cycle up hill and my range of destinations is wider. I cycle nearly every day, shopping and visiting family and friends. I do all my shopping on the bike and carry it home in my panniers."

Female participant aged over 55



Health on Wheels

Health on Wheels is a health improvement project developed by Cycling Projects in partnership with Stockport Primary Care Trust and the Department for Transport, to offer cycling to aid people recovering from ill-health.

"The best part is the fun we have. Also meeting new people and seeing everyone improve as the weeks go by. We meet in lovely parks and cycle along the paths free from any traffic. Tuition is kindly and encouragingly given and bikes are provided, so now I am the proud owner of my own bike. Fancy, this little old grandmother riding off into the sunset on her first bike."

Female participant

Conclusion and recommendations

Physical activity extends life, improves quality of life and reduces the risk of many diseases.

In order to achieve the greatest beneficial impact on the quality of life of older people, we need to create the conditions for everyone to be physically active throughout the life course, and support people in an active lifestyle. We should also ensure that people who wish to become active in later life are able to do so.

Active travel is one of the best ways to incorporate physical activity into everyday life, whether for a child going to school or a retired person going shopping. European countries with better provision for active travel achieve levels of walking, and especially cycling, among older people far in excess of UK levels.

The environment is a very important determinant of lifestyle physical activity, including active travel. We need to do more in the UK to create active-travel-friendly environments, and to tackle factors, such as motor traffic, urban sprawl, poor location of services,

public transport provision and anti-social behaviour, which tend to discourage older people from making active use of their neighbourhoods.

Further information

Age Concern
www.ageconcern.org.uk/AgeConcern/Documents/FS45_1105.pdf

British Heart Foundation
www.bhf.org.uk/publications/uploaded/bhf_active_for_later_life.pdf

British Heart Foundation National Centre for Physical Activity and Health
www.bhfactive.org.uk/older-adults/index.html

Chief Medical Officer for England
www.dh.gov.uk/assetRoot/04/08/09/81/04080981.pdf

Department of Health (National Service Framework for Older People)
www.dh.gov.uk/assetRoot/04/07/12/83/04071283.pdf

Health Challenge Wales
www.healthchallenge.wales.gov.uk

Health Promotion Agency Northern Ireland
www.getalifegetactive.com

Healthyliving
www.healthyliving.gov.uk

NHS Health Scotland
www.healthscotland.com

National Coalition for Active Ageing
www.laterlifetraining.co.uk/documents/NCCAFinal.pdf

Office of National Statistics
www.statistics.gov.uk/focuson/olderpeople

Walking the Way to Health
www.whi.org.uk

Welsh Assembly Government
www.cmo.wales.gov.uk/content/publications/strategies/index-e.htm

World Health Organisation
www.who.int/ageing/publications/active/en



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