Active travel and men's health

The benefits of physical activity for men throughout the life course

INFORMATION SHEET FH16

Foreword

"It is vital for men to build physical activity into their daily lives if they are to enjoy good health into old age. A concerted effort is needed to challenge the dominance of sedentary lifestyles, which currently leave far too many adult males susceptible to becoming obese and to having their lives cut short by chronic disease. Doing more physical activity isn't only about finding time for sport – simply by changing the way they travel, to modes such as walking and cycling for routine journeys, men can take a significant step towards a healthier future."

Sir Liam Donaldson
Chief Medical Officer for England,
Department of Health

"The need for action to improve men's health is clear: compared with women, men lead shorter lives and develop many serious illnesses earlier. Men can drastically lower their health risks through regular physical activity, and promoting active living at the population level holds great potential for closing this health and life-expectancy gap. Workplace health initiatives such as active commuting schemes are one example of how to effectively engage with men on health issues. Walking and cycling, to work, to visit friends or to the shops, benefit all areas of health."

Dr Ian Banks
President, Men's Health Forum

Introduction

Despite the known risks of physical inactivity, it continues to be a major cause of ill health for men in the UK. Physical inactivity is associated with increased incidence of obesity, diabetes, cardiovascular disease (CVD), some cancers and mental health problems. It is therefore recommended that men engage in at least 30 minutes of physical activity on five or more days of the week, and for boys, an hour per day. Adherence to these guidelines is associated with a significant reduced risk of mortality as opposed to that seen in sedentary men[1].

Life expectancy in males is lower than in females, and is inversely related to social deprivation[2]. Figures show 16% of men compared to 6% of women die while still of working age[3]. Men are more likely than women to develop most of the more serious forms of ill health, and to develop them earlier.

Physical activity levels amongst men in the

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UK are low – currently only 40% of men in England[4], 45% in Scotland[5] and 36% in Wales[6] achieve the recommended minimum activity levels for good health. Only 6% of adult men (aged 16-64) are aware of the recommended minimum level for physical activity[7].

Men's health and physical activity

There is a relatively large body of research addressing physical activity and men, not least because of a historical focus on health among the workforce in which men for many years have dominated. This included the world's first studies of the effects of physical activity on heart health which focused on London bus drivers and conductors, postmen and office based workers[8]. Further work explored leisure time physical activity and its cardio-protective function, again among men[9].

Health inequalities

Serious differences persist in the health and wellbeing of men based on their income. Men from lower income groups live shorter lives and experience more serious health problems at an earlier age. A man from the lowest social class (Class V) has over twice the chance of dying from coronary heart disease (CHD) as a man from the highest social Class I, while stroke, diabetes and mental health problems are also more prevalent in lower income men[10]. The gap in life expectancy across the income divide means that an unskilled male manual worker can expect to live on average seven years less than a man in a professional occupation – up to 10 years in some parts of the UK[11].

Economically poorer men are also more likely to be inactive and less likely to adhere to minimum physical activity guidelines. In 2006, 34% of men from the most deprived households in England were classified as sedentary (less than 30 minutes of physical activity per week), compared to 28% of men in the richest households[12].

Lifestyle

Studies locate physical activity as a key factor in preventing premature death, alongside other variables of a healthy lifestyle such as a healthy diet and not smoking. This includes reduced deaths from cardiovascular causes, cancer, and other non-communicable diseases[13]. Even among older men (aged 70-90) studies have shown that eating a Mediterranean diet, moderate alcohol consumption, moderate to high physical activity levels, and not smoking have been associated with lower mortality rates during a 10-year period. Individuals with 2, 3, or 4 of these low-risk factors had a significantly lower risk of mortality compared with individuals with 0 or 1 low-risk factor during 10 years of follow-up[14].

Walking and cycling

Walking and cycling hold great potential as inexpensive and accessible ways in which men can reduce their risk from non-communicable disease, especially when integrated into daily routine such as for local travel. Results from attitude surveys show that 66% of men want to do more physical activity but are prevented by lack of leisure time and perceived expense[7].

Leisure time physical activity of all kinds and cycling for transportation were found, in a study by Andersen, to be inversely associated with all-cause mortality in men in all age groups[15]. This corresponds with a Swedish study among 15–50 year old males which quantified energy use throughout the 20th century and concluded that daily energy expenditure had decreased across all ages. The greatest changes were found in occupational and active travel expenditures[16]. Thus increasing active travel opportunities is a key means by which to reduce all-cause mortality in men.

Physical activity through the life course

Adolescence and puberty

Research from across the world has widely reported that by the onset of puberty, levels of physical activity are higher in boys than in girls. In terms of travel behaviour, more boys aged under 16 cycle than girls. Objectively measured total physical activity is also higher in boys than girls[17], and this is a trend that continues throughout the life-course. Yet, male teenagers now cycle half the distance they did 20 years ago, while 20% of motorised traffic during the immediate pre-school period is involved with transporting children to school[18]. Boys' physical activity, unlike that of girls, does not decline after the ages of 8-10 but rather declines from the later teenage years. Current UK guidelines recommend that children and young people should be active for an hour each day for good health. In England, 72% of boys currently meet this target[4], with a similar level in Scotland[19].

Research has found that living in mixed-use areas (i.e. with shops and other commercial destinations) and having access to recreational space is directly related to children and young people choosing to walk for transport, and that there is a stronger association with land-use and recreational space for boys than girls[20].

The findings of a range of studies suggest that high levels of physical fitness during adolescence and young adulthood are related to a 'healthy' CVD risk profile later in life, but there is no direct proof that activity in childhood provides protection from CVD in adulthood[21].

Adulthood and middle age

Adult men who are physically active have a 20-30% reduced risk of premature death and up to 50% reduced risk of developing major chronic diseases[22]. High quality studies in young to middle aged adults have shown a lower risk profile among those who exercise than men who don't[23]. There is also convincing evidence to show that adults who regularly choose to walk or cycle for travel purposes, such as actively commuting to work, can lower many of their major health risks[22].

The Whitehall Study in England showed how routine walking, the most accessible means of being regularly active, is of significant benefit to cardiovascular health. The study followed 6,702 men aged 40–64, over 25 years. Brisk walking pace demonstrated reduced mortality from all causes, CHD and other cardiovascular disease, respiratory disease and all cancers after adjustment for risk factors including age, employment grade, smoking, body mass index, and lung capacity[24].

A study of men and women in Copenhagen, including 6,954 who cycled to work, found that cycling as a form of exercise has a strong protective function, with a 39% higher mortality rate amongst those who did not cycle after adjustment for other factors including smoking and leisure time physical activity[15].

Active ageing

The proportion of men meeting physical activity recommendations declines with age. In England for example, physical activity guidelines were met by only 9% of those aged 75 and over[25].

Keeping active helps maintain and extend quality of life in old age with a beneficial impact on heart health (CVD being the most common chronic disease reported by men aged over 65[26] and for maintaining bone density, general mobility and good mental health. Developing active habits through the life course from childhood may be an ideal, but men can benefit from improved physical and mental functioning even when only starting to incorporate physical activity in later life[27]. This does suggest that it is better to commence and then remain physically active throughout the life course.

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[28]. This corresponds with the general finding that the more physical activity undertaken the greater the health benefits[29]. Walking is the most common form of physical activity for older people and current guidance has highlighted the importance of designing built environments to offer safe, pleasant walking routes for all ages[30].

Protection against ill health and disease

Overweight and obesity

Studies have reported that abdominal obesity is associated with increased death rates. Overweight and obesity doubles the risk of all-cause mortality, CHD, stroke and type 2 diabetes, and increases the risk of some cancers[22].

Rates of obesity across the sexes in the UK have more than doubled in the last 25 years and are expected to rise steeply: by 2015, 36% of men are predicted to be obese and by 2050 only 15% will have a healthy body weight[31]. Two-thirds of men are currently overweight (including obese)[4], with no obvious socio-economic pattern unlike the clear relationship in women[32].

Inactivity is widely recognised as a key risk factor behind the current obesity epidemic. Health Survey data, for example, shows that physical activity levels are inversely related to BMI status[32]. While it is generally accepted that obesity is associated with health hazards and leanness in contrast is associated with health benefits, the evidence is that lean men increase their longevity only if they are physical fit, and that obese men who are fit do not have raised death rates[33].

Studies have shown that choosing active ways of travelling can help to prevent men from becoming obese. Research from the United States has found that each additional kilometre walked per day is associated with a 4.8% reduction in the likelihood of obesity[34].

Stroke and hypertension

Rates of stroke among men under the age of 74 have remained relatively stable over the last 15 years, while prevalence among older men has risen markedly[4]. Official health guidance states that there is a high level of evidence to support physical activity preventing stroke[22]. Daily active commuting also reduces the risks of ischemic stroke[35]. New research also suggests that people who are physically active make a better recovery and are less disabled if they suffer a stroke[36].

Hypertension, a major predisposing factor for stroke and heart disease, has been linked to a lack of physical activity in men of all ages[37]. In 2005, 62% of men aged 65 and over were reported to be hypertensive[26]. Physical activity, including walking and cycling, decreases the risk for hypertension in men[38].

Cancer

In general men are at significantly greater risk than women from nearly all of the common cancers that occur in both sexes[39]. Cancer accounted for 29% of total male mortality in 2007 in the UK, with lung, prostate and colorectal cancers making up 53% of cancer cases and 47% of cancer deaths in men[40]. Welsh men have an approximate 1 in 3 chance of being diagnosed with cancer before their 75th birthday compared to an approximate 2 in 7 chance for Welsh women[41].

Lifestyle factors such as diet, smoking and inactivity are involved in the development of cancer in men, although the complete picture of elevated risk for men is complex and still only partially understood[42].

Regular physical activity can slow the progression of diagnosed prostate cancer[43] and halve the risk of colon cancer compared to being sedentary[44]. Colon cancer is the third most common type of cancer in men and third greatest cause of cancer deaths[40].

Heart health

Heart disease is more than twice as common in men as women under the age of 65, with men also developing the disease earlier[45]. Morris highlighted the fact that exercise is the

'best buy' in public health in the prevention of CHD[46]. Over recent decades research has continued to show the positive relationship between physical activity and heart health among both men and women[47]. Active travel also has a protective function in this area of health. Evidence has shown walking to be inversely associated with CVD risk and all-cause mortality in men[48].

Diabetes

Diabetes is a major risk factor for CVD and tends to worsen the effects of other risk factors such as raised cholesterol and hypertension[26]. Middle-aged men are more than twice as likely to have diabetes as middle-aged women[49] and overall the male incidence of diabetes has risen markedly: from 2.9% in 1994 to 5.6% for men in 2007[4] with obese men being nearly 5 times more likely to develop Type 2 diabetes than non-obese men[50].

The Finnish Diabetes Prevention Study showed that changes to lifestyle that included increasing levels of physical activity were a feasible option in the prevention of Type 2 diabetes[51]. Evidence also highlights the valuable health benefits of an active lifestyle for people living with and managing the condition – results of one study among older adults with diabetes suggested walking more than 1 mile per day may provide strong protection from CVD mortality[52].

Mental health

There is considerable literature linking regular physical activity with benefits to general mental health such as improved self-esteem and mood, as well as for treating mental illnesses such as clinical depression and panic attacks[22]. This evidence addresses both men and women. Drug and alcohol addictions are more common in the male population, and men are also more likely to commit suicide[53]. Mental illness is particularly common amongst older people, with depression its most common form.

Research has shown that even short bursts of activity, such as cycling to the shops, can have positive effects on mental health, although activity sustained over several months has been found to provide the most positive effects[54].

Arthritis and osteoporosis

Prevalence of arthritis and osteoporosis increases with age, affecting 32% of men aged 65 and over[26]. Regular physical activity in people with arthritis has been shown to decrease pain, improve function, and delay disability, yet adults with arthritis have been found to be significantly less likely to engage in the recommended levels of physical activity[55].

Conclusion

Walking and cycling for more routine journeys is a feasible way for more men in our time-poor society to meet physical activity guidelines and experience better health, longer lives and improved quality of life. Active travel does not deter participation on the basis of cost and can be a useful way for the most inactive men from lower income groups to improve their health.

Keeping active has something to offer men of all ages, but especially from middle age onwards when risk of disease is more prominent. The benefits to be gained from walking and cycling, for physical and for mental health, can be enjoyed even when taken up in later years. However, it is a case of 'the earlier the better' in terms of encouraging men to incorporate physical activity into their daily routine.

Promoting physical activity to all males throughout the life course is important. However, it is equally important that all sectors work together to ensure that activity-friendly built environments - supportive of walking and cycling, and where these are not suppressed by motor traffic - are available to all.

Further information

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