

# Active travel and women's health

The benefits of physical activity for women throughout the life course

INFORMATION SHEET FH11

*“Regular physical activity can bring real health benefits. As well as reducing the risks of serious chronic illnesses such as heart disease and breast cancer, it also helps us to maintain a healthy weight, stay fit and get the most out of life. The Scottish Government supports a wide range of initiatives to encourage people to be more active.*

*Many of these initiatives are aimed at girls and women, as evidence shows that from their teenage years onwards, many females become less and less active in their everyday lives. In the recent spending review, we also doubled our investment in our physical activity programme to just under £4 million a year.*

*The Scottish Government welcomes Sustrans' work to promote the benefits of active travel for girls and women in Scotland. We know that if people are to be physically active enough for a healthy life, the active choice needs to be the easy choice.”*

**Shona Robison,**  
Minister for Public Health,  
Scottish Government

*“Physical inactivity is a serious and increasing public health problem. Just making a small increase in activity levels can make a big difference to your overall physical well-being.*

*We know that the easiest and most popular forms of physical activity are those that can be incorporated into everyday life. A great way to be active is to include walking and cycling in our daily routine, such as during the journey to work or school run.*

*Sustrans' Active Travel initiatives play an important role in helping women to achieve the recommendations of 30 minutes of moderate activity on five or more days of the week. The Department of Health welcomes initiatives like these, which enable girls and women to improve their physical activity levels and stay active.”*

**Dawn Primarolo,**  
Minister of State for Public Health,  
Department of Health



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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## Introduction

Physical and mental well-being is vital for a woman's quality of life throughout the life course. As the female population ages, it is important that women incorporate regular physical activity into their daily routine, to promote physical and mental well-being. The current recommendation for women is 30 minutes of physical activity on five or more days of the week and for girls, an hour per day.

Physical activity levels amongst women in the UK are low. In England and Wales only 28% and 24% respectively of women meet the current guidelines suggested by the Government<sup>(1)(2)</sup>, whilst in Scotland, 28% of women are active enough to benefit their health<sup>(3)</sup>. Physical inactivity in women can lead to coronary heart disease, stroke, obesity, diabetes, osteoporosis, some cancers and mental health problems.

## Women's health and physical activity

### Health inequalities

Health inequalities, including differences in length and quality of life, can be caused by social and economic factors such as employment, level of income, education, housing, the environment, and access to transport including travel choices. The Department for Health has a PSA target to reduce health inequalities by 10% by 2010 as measured by infant mortality and life expectancy at birth.

In 2003-5 in England, life expectancy for women in areas with the worst health and deprivation was 1.6 years lower than average<sup>(4)</sup>.

A recent Scottish Health Survey reported that only 27% of women in semi-routine and routine households achieved a minimum of 30 minutes of moderate to vigorous physical activity

on at least five days a week, compared to 35% in small-employer and own account worker households and 32% in managerial and professional households<sup>(5)</sup>.

Compared with the general population in England, women of Indian, Pakistani, Bangladeshi and Chinese origin are less likely to undertake sufficient physical activity to promote their health. For example, only 11% of Bangladeshi women meet the current recommended physical activity levels<sup>(6)</sup>.

## Physical activity through the life course

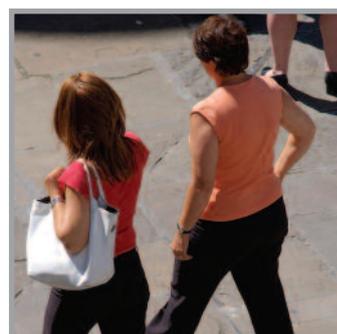
Levels of physical activity decline with age in both men and women: 72% of men and 82% of women aged 75 and over do less than 30 minutes of activity per week<sup>(7)</sup>. However, there are differences in reported physical activity levels between the sexes from early in the life course.

### Adolescence and puberty

Despite the importance of physical activity, many girls become less active during their teenage years; the decline is more marked than in boys<sup>(8)</sup>. The Scottish Health Survey 2003 reports that 63% of girls aged 2-15 are sufficiently physically active. By the age of 13-15, only 41% of girls reach the recommended level of physical activity of an hour a day. In England, 59% of girls aged 2-15 were active for at least an hour a day, but by 15 only 45% reached the recommended level<sup>(9)</sup>.

The starting age of activity is important: the benefit to bone tissue is doubled if the activity is started before or at puberty rather than after it<sup>(10)</sup>.

Girls experience many physical and mental changes during adolescence and puberty. Encouragement to participate in regular physical activity can also be beneficial to them in managing this transition<sup>(8)</sup>.



## Pregnancy

Regular physical activity during pregnancy, especially walking, can help towards improving mood and self-image, ensure appropriate weight gain, reduce stress, promote better sleep, increase muscle tone, strength and endurance, help build stamina for labour and delivery, speed up recovery after labour and delivery, and help increase energy levels<sup>(11)</sup>.

Evidence suggests that women with gestational diabetes are at increased risk of Type 2 diabetes<sup>(12)</sup>.

## Menopause

Physical activity appears to enhance mood and quality of life during menopause. A recent study suggests that walking has a positive effect on menopause-related quality of life. Whether menopausal symptoms increased or decreased across the trial appeared to be determined in part by whether there were increases or decreases in cardio-respiratory fitness<sup>(13)</sup>. Physical activity is also associated with a reduced risk of breast cancer among postmenopausal women<sup>(14)</sup>.

## Active ageing

Healthy ageing is largely attributable to individual lifestyle choices and while physical activity levels decline as we age, physical activity is particularly important in maintaining health, mobility and overall quality of life. Long-term regular physical activity, including walking, is associated with significantly better cognitive function and lower cognitive decline in older women<sup>(15)</sup>. Even sedentary middle-aged women experienced improvements in quality of life and general functioning as a result of participating in an exercise intervention<sup>(16)</sup>. 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<sup>(17)</sup>.

## Protection against ill-health and disease

### Mental health

Physical activity has a positive effect on mental health. In middle-age, there is a clear relationship between increasing physical activity and decreasing depressive symptoms in women, independent of pre-existing physical and psychological health<sup>(18)</sup>. Benefits also include a reduction in anxiety, stress, poor sleep, dementia and Alzheimer's disease, particularly among older women<sup>(19)</sup>.

There is also strong evidence that physical activity makes people feel better about themselves. This may be particularly important for women, as research shows that compared to men, women tend to be more critical of their own body shape, and their body image is more closely linked to overall self-esteem<sup>(20)</sup>.

### Overweight and obesity

Data from the Health Survey for England show that, in 2006, 32% of women were overweight and 24% obese. The obesity figure is predicted to rise to 50% by 2050<sup>(21)</sup>. Obese women are almost 13 times more likely to develop Type 2 diabetes than non-obese women<sup>(22)</sup>. 5% of cancers in women are caused by being overweight or obese<sup>(23)</sup>.

The Health Survey for England also identifies 29% of girls aged 2–15 as overweight or obese.

### Cancer

Evidence suggests that physical activity protects against colon cancer, postmenopausal breast cancer, and probably protects against cancer of the endometrium. Overweight and obesity increase the risk of a number of cancers. The mid-1990s rates of overweight and obesity, in adults as well as in children, have greatly increased in most countries<sup>(24)</sup>.



Three large studies in Italy and the USA estimated that physical inactivity could cause 13-14% of all bowel cancer cases<sup>(25)(26)</sup> and about a third of breast cancer cases<sup>(27)</sup>. Other research has reported significant associations between endometrial cancer and physical inactivity<sup>(28)</sup>.

There is evidence that physical activity after a breast cancer diagnosis may reduce the risk of death from this disease. In one study the greatest benefit occurred in women who performed the equivalent of walking 3 to 5 hours per week at an average pace<sup>(29)</sup>.

### Coronary Heart Disease (CHD) and Cardiovascular Disease (CVD)

The majority of CHD is potentially preventable<sup>(30)</sup>. The 2002 World Health Report estimated that over 20% of CHD and 10% of stroke in developed countries was due to physical inactivity. In the UK in 2002, 53,003 women died of CHD<sup>(30)</sup>.

Physical activity is associated with reduced risk of CVD in a dose-response fashion so that the more physical activity is undertaken the lower the risk<sup>(31)</sup>. Studies of older women show that walking duration and pace have an inverse relationship to CVD - the longer the duration and faster the pace, the greater the benefits<sup>(32)</sup>.

### Stroke, and High Blood Pressure/ Hypertension

Stroke is a major risk factor for women, especially older women, as the risk factor increases with age. Over 74,000 women in the UK have a stroke each year<sup>(33)</sup>. Physical activity has been reported to be inversely related to the incidence of stroke<sup>(34)</sup>.

Hypertension is a major predisposing factor for stroke and other cerebrovascular diseases and heart disease, and 64% of women aged 65 and over are hypertensive<sup>(35)</sup>.

20% of females in Wales in 2004/05 reported being treated for high blood pressure with the greatest proportion being over 65 years of age<sup>(36)</sup>. In England over 28% of women were reported to have high blood pressure but not necessarily being treated<sup>(30)</sup> and similarly almost 33% of women in Scotland were estimated to have high blood pressure<sup>(37)</sup>.

Regular physical activity prevents high blood pressure and reduces blood pressure in people with hypertension<sup>(38)</sup>.

### Osteoporosis

Osteoporosis is a condition of reduced bone density usually associated with women and especially older women. In an ageing UK population the prevalence of osteoporosis will increase. However, leading an active lifestyle will reduce the risk of osteoporosis<sup>(39)</sup> and help maintain good balance and co-ordination as well as developing muscle strength. All these can reduce the risk of falling and breaking bones, particularly hips.

Physical activity can prevent up to 25% of falls by regulating the production and circulation of hormones, improving balance and developing muscle power. Moderate daily general physical activity, especially walking, may be associated with a lower risk of subsequent osteoarthritis, especially in women<sup>(7)</sup>.

### Diabetes

Physical activity substantially reduces the risk of Type 2 diabetes throughout the life course<sup>(7)</sup>. Women with diabetes have a higher chance of developing certain serious health problems, including heart disease, stroke, high blood pressure, circulation problems, nerve damage, and damage to the kidneys and eyes. The risk is particularly high for people with diabetes who are also very overweight and are not physically active. Regular physical activity helps reduce the risk of developing any of these complications<sup>(40)</sup>. The prevalence of diagnosed diabetes has increased by 80% in women since 1991<sup>(6)</sup>.



10% of women in England aged 65 and over reported having diabetes<sup>(41)</sup>. In Wales, 5% of women (aged 16 and over) are being treated for diabetes<sup>(2)</sup>.

## Arthritis

Regular physical activity in people with arthritis has been shown to decrease pain, improve function, and delay disability<sup>(42)</sup>. An Australian study of over 8,000 middle-aged and older women, over a 3-year period, showed that participating in physical activity could delay the onset and development of arthritis<sup>(43)</sup>. Thus physical activity can reduce arthritic pain and suffering in women and bring considerable cost savings to the healthcare system.

## The environment, safety and physical activity

Concern about safety and accessibility of places where women can be physically active may be a barrier to improved health. Women are more likely to report not walking for at least 150 minutes per week if they have concerns for their safety and if they do not have any local shops within their neighbourhood<sup>(44)</sup>. Parks perceived to be safe may be attractive for those women with time for leisure-time physical activity<sup>(45)</sup>. In contrast, poor walking environments may be a deterrent to walking, not least for mothers with young children<sup>(46)</sup>.

It is important to improve the attractiveness and perceived safety of the environment, to help people choose active travel. The National Cycle Network is an example with 37% of female pedestrians and nearly two thirds of women who cycle on it identifying safety on the route as being very important to them<sup>(47)</sup>. The Network is enabling people to walk and cycle more all over the UK. During 2006 the Network carried more than 100 million active trips by women.

## Conclusion

Women still have a lower level of car ownership and licence holding than men<sup>(48)</sup>. As women are still more likely than men to make local trips, there are important opportunities for walking and cycling relatively short distances, such as journeys to local shops and the school journey. This can enable 30 minutes of activity to be accumulated per day. In addition, instilling walking into the routines of children's lives is an important parental task in ensuring that they also take sufficient levels of physical activity to promote health.

Physical activity is vital for women throughout the life course as it improves quality of life and reduces the risk to health from many non-communicable diseases. It is never too late to become physically active, and women can benefit from doing so at any age; however, women will benefit most by being physically active from childhood and adolescence. Building activity into everyday life provides the most sustainable way for most adults to achieve the recommended minimum of 30 minutes of activity on most days of the week and live longer lives free from disease and ill-health. Walking and cycling, instead of using sedentary motorised transport, are ideal and accessible ways to do this.



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