

CONTENTS

Acknowledgements	2
Foreword	3
The global burden of CVD	4
The importance of physical activity	5
Physical activity recommendations	6
The benefits of walking	8
The need for collaborative action	1C
About the World Heart Federation	11
About Bupa	13
References	14

ACKNOWLEDGEMENTS

Bupa and the World Heart Federation would like to thank Katy Cooper from C3 Collaborating for Health, and the World Heart Federation's Chief Science Officer, Professor Kathryn Taubert, for their valuable assistance and feedback in the preparation of this report.

FOREWORD

Cardiovascular disease (CVD), which includes heart disease and stroke, is one of the toughest challenges in healthcare. Globally, more people die from CVD than from any other cause. In 2008, CVD claimed 17.3 million lives and, by 2030, it is expected that number will increase to over 23 million.

Yet a large proportion of illness and death from CVD could be prevented if people around the world were able to better manage simple lifestyle risk factors by, for example, not smoking, eating well and, importantly, doing more physical activity.

Bupa and the World Heart Federation are committed to getting people around the world to do more physical activity to lower their risk of CVD, so that people can live longer, healthier, happier lives.

The World Health Organization (WHO) estimates that more than 60% of people around the world are

not sufficiently active, and physical inactivity is the fourth leading risk factor for global mortality.

That's why Bupa and the World Heart Federation are launching a new partnership to get the world walking. Walking is the most accessible form of physical activity: it's free, most people can do it, it can be easily incorporated into a daily routine and it's clinically proven that it can improve a person's heart health.

In order to significantly reduce the number of preventable deaths from CVD, we all need to work together to support and motivate people across the world to take steps to lower their risk.

We have a shared vision and purpose to improve the world's health and we are proud to be working together to motivate people to take steps to a healthy heart. We hope that the world joins us on our journey.

Stuart Flatshar

Stuart Fletcher Chief Executive Officer Bupa

Johanna Ralston Chief Executive Officer World Heart Federation

THE GLOBAL BURDEN OF CVD

Cardiovascular disease (CVD) is one of the toughest challenges in healthcare. Globally, more people die each year from CVD than from any other cause.¹

In 2008, CVD claimed 17.3 million lives, accounting for one third of all deaths from all causes, globally² and nearly half of the global non-communicable disease burden, taking a terrible toll on individuals, families and society.³

By 2030, it is expected that the number of people who will die from CVD (mainly from heart disease and stroke) will increase to 23.3 million.⁴ Yet, a large proportion of deaths from CVD are avoidable and there are a number of ways that people can reduce their risk.⁵

Although some CVD risk factors, such as family history or age, cannot be

modified, 80% of all heart disease and stroke would be prevented if the main risk factors were eliminated: if we all stopped smoking, ate a healthy diet and did enough physical activity.⁶

The prevalence of CVD risk factors (such as physical inactivity) is increasing in most countries around the world⁷ and the more risk factors a person has, the greater their chance of developing the disease. CVD risk factors that can be modified or treated include raised blood pressure (hypertension), raised blood glucose (diabetes), raised blood cholesterol, tobacco use, physical inactivity, and overweight and obesity.⁸

The good news is that, for most CVD risk factors, there are steps you can take to reduce them.

What is CVD?

CVD is caused by disorders of the heart and blood vessels, and includes coronary heart disease (heart attacks), cerebrovascular disease (stroke), raised blood pressure (hypertension), peripheral artery disease, rheumatic heart disease, congenital heart disease and heart failure.

CVD can lead to acute events such as heart attack or stroke, or may cause long-term health complications that can affect many parts of a person's life, from their ability to work and have relationships, to housing and education opportunities.

Heart attacks and strokes are usually acute events and are mainly caused by a blockage that prevents blood from flowing to the heart or brain. The most common reason for this is a build-up of cholesterol and other fatty deposits (called plaque) on the inner walls of the arteries that supply the heart or brain. This build-up develops over years. At some point, a plaque can suddenly rupture, which causes a blood clot to form in the artery, cutting off blood flow to a part of the heart or brain and causing a heart attack or a stroke. While the majority of strokes are caused by blood clots (ischemic stroke), some can also be caused by a burst blood vessel in the brain (hemorrhagic stroke).

THE IMPORTANCE OF PHYSICAL ACTIVITY

Physical inactivity is the fourth leading risk factor for global mortality (behind high blood pressure, tobacco use and high blood glucose), and is a key risk factor for CVD⁹ - being physically inactive increases a person's risk of having a heart attack or stroke.¹⁰

The importance of physical inactivity as a risk factor was particularly recognised in 2013 when the World Health Assembly - the annual gathering of the world's health ministers - made a global commitment to reduce the prevalence of insufficient physical activity by 10%, as a part of a suite of targets that aim to reduce premature mortality from non-communicable diseases (NCDs) by 25% by 2025.

Despite the known health benefits of physical activity, people in many countries are becoming less active. In some cases, this is because the environment makes it harder to build exercise into daily routines (for example, if it is easier to take the car than to walk), or because people's jobs and lifestyles are becoming less physically demanding. This can have major implications for the prevalence of NCDs and the general health of people around the world."

According to the WHO, more than 60% of the global population are not sufficiently active.¹² In 2008, around 31% of adults (28% of men and 34% of women), aged 15 or older, were insufficiently active.¹³

Prevalence of insufficient physical activity was highest in the WHO Region of the Americas and the Eastern Mediterranean Region. In both these regions, almost 50% of women were insufficiently active, while the prevalence for men was 40% in the Americas and 36% in Eastern Mediterranean. The South East Asian Region showed the lowest percentages (15% for men and 19% for women).¹⁴

High-income countries have more than double the rates of insufficient physical activity compared to low-income countries for both men and women. with 41% of men and 48% of women being insufficiently physically active in high-income countries compared to 18% of men and 21% of women in low-income countries.¹⁵ In addition. people in different socioeconomic groups have different patterns of physical activity - in England, for example, people in higher socioeconomic groups are more likely to reach the recommended physical activity levels.16

More than 60% of the global population are not sufficiently active

PHYSICAL ACTIVITY RECOMMENDATIONS

Different age groups have different physical activity requirements.¹⁷

It is recommended that children and young people should accumulate at least 60 minutes of moderate to vigorous-intensity physical activity daily. Most of the daily physical activity should be aerobic activities; and activities that strengthen muscle and bone should be included, at least three times per week.

For children and young people aged 5-17 years old, physical activity includes play, games, sports, transportation, recreation, physical education or planned exercise, in the context of family, school, and community activities.

Adults should do at least 150 minutes of moderate-intensity (or at least 75 minutes of vigorous-intensity) aerobic physical activity throughout the week, or an equivalent combination of moderate and vigorous-intensity activity. Aerobic activity should be performed in bouts of at least 10 minutes in duration, and muscle-

strengthening activities that involve major muscle groups should be done on two or more days each week.

When adults over 65 years old cannot do the recommended amounts of physical activity due to health conditions, they should be as physically active as their mobility and health allow.

Physical activity for adults includes recreational or leisure-time physical activity, transportation (e.g. walking or cycling), occupational (i.e. work), household chores, games, sports or planned exercise, in the context of daily, family, and community activities.

Doing some physical activity is better than doing none and even small increases in physical fitness are associated with a significant reduction in CVD risk. Inactive adults, older adults and those with disease limitations receive added health benefits when they become more active.¹⁹

Adults should do at least 150 minutes of moderate physical activity per week

If you're not used to physical activity, even 30 minutes might sound like a lot - but you do not need to do your 30 minutes in one session,²⁰ inactive people should start with small amounts of physical activity and gradually increase duration, frequency and intensity over time.

You can start by making a small change such as ensuring you get up and move around more throughout the day, as evidence shows sitting for long periods of time can increase your risk of chronic diseases such as cancer, diabetes and CVD.²¹



The difference between 'moderate' and 'vigorous-intensity' physical activity

The talk test is an easy way to determine whether your physical activity can be considered 'moderate', or 'vigorous'. If you're doing moderate-intensity activity you can talk, but not sing, during the activity. If you're doing vigorous-intensity activity, you will not be able to say more than a few words without pausing for a breath'.¹⁸

THE BENEFITS OF WALKING

Walking is a great way to increase physical activity levels. It is one of the most accessible forms of physical activity: most people can do it, it is free, can be easily incorporated into a daily routine, and evidence has shown that it can improve your heart health.²²

Importantly, walking briskly (at a pace of at least 3mph or 5kph) counts toward the WHO's recommendation that adults do at least 150 minutes a week of moderate physical activity.

The impact of walking on reducing the risk of CVD (including heart disease and stroke) has been examined in several studies, which have demonstrated that walking can:

- reduce the risk of CVD by over 10%²³
- decrease body weight, body mass index (BMI), body fat percentage and waist circumference
- lower blood pressure, and increase aerobic capacity (the capacity of an individual's body to transport and use oxygen during exercise) by up to about a fifth
- lower levels of the fat that can cause hardening and narrowing of the arteries (triglycerides) ²⁴
- increase 'good' (HDL) cholesterol.²⁵

A recent study of 400,000 people found that, just 15 minutes a day of brisk walking can have significant health benefits, adding up to three years to life expectancy - and every additional 15 minutes of daily exercise reduced all-cause death rates by a further 4%.³⁵

One study showed that walking at least two hours a week reduced the incidence of premature death from CVD by about 50%.²⁶

In addition to lowering the risk of CVD, walking has been shown to provide other health benefits, including:

- reducing the risk of other noncommunicable diseases, such as type 2 diabetes,²⁷ and have benefits for people recovering from cancer²⁸
- improve sleep patterns, boost energy levels²⁹
- increase muscle endurance³⁰
- mental health benefits through the release of hormones (chemicals produced naturally by your body) called endorphins that improve mood
 building self-esteem as well as reducing feelings of stress and anxiety³¹
- decrease the risk of dementia³²
- reduce and alleviate joint and back pain by increasing muscle strength and helping to keep bones strong (which may also help protect against osteoporosis)³³
- people with chronic obstructive pulmonary disease (COPD), who undertake more walking, halve their risk of being admitted as an emergency admission.³⁴

WALKING AND HEART HEALTH



CARDIOVASCULAR DISEASE (CVD) HEART ATTACKS & STROKES

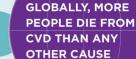








2008



23.6m DEATHS FROM CVD









YET A LARGE PROPORTION OF DEATHS CAUSED BY CVD COULD BE PREVENTED

YOU CAN DECREASE YOUR RISK OF HAVING A HEART ATTACK OR STROKE BY BEING PHYSICALLY ACTIVE



MORE THAN

OF THE GLOBAL POPULATION AREN'T ACTIVE ENOUGH



DOING SOME ACTIVITY IS BETTER THAN NONE



WALKING BRISKLY FOR 150 MINUTES A WEEK IS GOOD FOR YOUR HEALTH **150 MINS** PER WEEK



TO HELP YOU GET WALKING AND STAY WALKING, **DOWNLOAD THE GROUND MILES APP**

...AND CAN **REDUCE** THE RISK OF CVD BY

WALKING IS FUN & FREE...

THE NEED FOR COLLABORATIVE ACTION

Heart disease is one of the most critical healthcare challenges of our time. However, there is a huge opportunity to make a dramatic difference to lives of millions of people. Together, Bupa and the World Heart Federation are committed to helping people reduce their risk of CVD, by motivating and encouraging people to be more physically active - by walking more.

Along with the heart specific, and wider health benefits of walking, studies have also shown that walking has higher levels of 'stickability' than other forms of physical activity³⁶ - it is convenient and overcomes many of the commonly perceived barriers to physical activity: lack of time, lack of fitness or lack of skill.

Unfortunately, however, walking rates have declined steadily over several decades.³⁷ The proportion of children walking or cycling to school fell from 48% to 13% between 1969 and 2009 in the US, and from 62% to 50% between 1989 and 2004 among primary school children in the UK³⁸ - this decline is continuing around the world. For example, in India rising car ownership is discouraging walking and, in China, reduced walking has contributed to an increase in obesity levels.

Together, Bupa, a leading international healthcare group that exists to help people live healthier, happier, longer lives, and the World Heart Federation, the global leader in the fight against CVD, are committed to reversing the increasing prevalence of CVD, as well as these declining walking rates. In order to do so, we all need to work together to support and motivate people to get walking and stay walking.

Walking rates have declined steadily over several decades

ABOUT WORLD HEART FEDERATION

The World Heart Federation is dedicated to leading the global fight against CVD via a united community of more than 200 member organisations.

With its members, the World Heart Federation works to build global commitment to address cardiovascular health at the policy level; generates and exchanges ideas; shares best practice; advances scientific knowledge; and promotes knowledge transfer to tackle CVD - the number one killer worldwide.

The World Heart Federation is a growing membership organisation that brings together the strength of cardiac societies and heart foundations from more than 100 countries.

Alongside the World Health Organization, the World Heart Federation is committed to driving a 25% reduction in premature deaths from CVD by 2025.

For more information visit: www.world-heart-federation.org



17.3 million

people around the world died from CVD in 2008

in 2008

30%
of all deaths were due to CVD

23.3 million

people are expected to die from CVD (mainly from heart attack and stroke) by 2030

60%
of people around the world are not doing enough physical activity

80%

of all heart disease and stroke would be prevented if the major risk factors were eliminated - if we stopped smoking, ate a healthy diet and did enough physical activity.

ABOUT BUPA

Bupa's purpose is longer, healthier, happier lives.

A leading international healthcare group, we serve over 14 million customers in more than 190 countries. We offer personal and company-financed health insurance and medical subscription products, run hospitals, provide workplace health services, home healthcare, health assessments and chronic disease management services. We are also a major international provider of nursing and residential care for elderly people.

With no shareholders, we invest our profits to provide more and better healthcare and fulfil our purpose.

Bupa employs more than 62,000 people, principally in the UK, Australia, Spain, Poland, New Zealand and the USA, as well as Saudi Arabia, Hong Kong, India, Thailand, China and across Latin America.

For more information visit: www.bupa.com



REFERENCES

- ¹ Global status report on noncommunicable diseases 2010. Geneva, World Health Organization, 2011 (accessed via http://www.who.int/mediacentre/factsheets/fs317/en/index.html).
- ² Global status report on noncommunicable disaeses 2010. Geneva, World Health Organization, 2011
- ³ Global atlas on cardiovascular disease prevention and control. Geneva, World Health Organization, 2011.
- ⁴ Global status report on noncommunicable diseases 2010. Geneva, World Health Organization, 2011.
- ⁵ Cardiovascular diseases (CVDs) Fact sheet N°317, World Health Organisation, 2013 http://www.who.int/mediacentre/factsheets/fs317/en/.
- ⁶ Preventing chronic diseases: a vital investment: WHO global report, 2005: http://whqlibdoc.who.int/publications/2005/9241563001_eng.pdf.
- ⁷ Physical Inactivity, World Heart Federation http:// www.world-heart-federation.org/cardiovascularhealth/cardiovascular-disease-risk-factors/ physical-inactivity/.
- 8 Cardiovascular diseases (CVDs) Fact sheet N°317, World Health Organisation, 2013 http://www.who.int/mediacentre/factsheets/fs317/en/.
- ⁹ Physical Activity, World Health Organisation http://www.who.int/dietphysicalactivity/pa/en/.
- ¹⁰ Cardiovascular Disease: Controlling High Blood Pressure, World Health Organisation http://www. who.int/cardiovascular_diseases/en/.
- " http://whqlibdoc.who.int/publications/2010/9789241599979_eng.pdf.
- ¹² Risk Factor: Physical Inactivity, World Health Organisation http://www.who.int/cardiovascular_ diseases/en/cvd_atlas_08_physical_inactivity.pdf.
- ¹³ http://www.who.int/dietphysicalactivity/factsheet_inactivity/en/index.html.
- ¹⁴ http://www.who.int/dietphysicalactivity/factsheet_inactivity/en/index.html.

- ¹⁵ http://www.who.int/dietphysicalactivity/factsheet inactivity/en/index.html.
- ¹⁶ Ref to L. Farrell et al., The Socioeconomic Gradient in Physical Inactivity in England, Working Paper 13/311, University of Bristol: http://www.bris. ac.uk/cmpo/publications/papers/2013/wp311.pdf.
- ¹⁷ Source: Global recommendations on physical activity for health, World Health Organization 2010. http://whqlibdoc.who.int/publications/2010/9789241599979_eng.pdf.
- ¹⁸ US Centers for Disease Control and Prevention http://www.cdc.gov/physicalactivity/everyone/ measuring/index.html.
- ¹⁹ 10 Facts on Physical Activity, World Health Federation http://www.who.int/features/factfiles/ physical_activity/facts/en/index8.html.
- ²⁰ Loprinzi PD and Cardinal BJ 'Association between biologic outcomes and objectively measured physical activity accumulated in >10-minute bouts and <10-minute bouts', American Journal of Health Promotion (2013) http://www.ncbi.nlm.nih.gov/pubmed/23286590.
- ²¹ Emma S George, Richard R Rosenkranz and Gregory S Kolt, 'Chronic disease and sitting time in middle-aged Australian males: findings from the 45 and Up Study', International Journal of Behavioral Nutrition and Physical Activity 2013 10:20: http://www.ijbnpa.org/content/10/1/20.
- ²² Get Walking, Keep Walking, Bupa and C3 Collaborating for Health http://www.bupa.com/ media/478232/get_walking_final_22_06_12.pdf.
- ²³ Cited in murtagh, e.m., m.h. murphy and J. boone-heinonen, 'walking the first steps to cardiovascular disease prevention', Curr Opin Cardio. (2010) 25(5): 490-6: http://www.ncbi.nlm.nih.gov/pubmed/20625280.
- ²⁴ Gordon-Larsen, p., et al., 'active commuting and cardiovascular disease risk: the Cardia study.' arch intern med. (2009) 169: 1216-23: http://www.ncbi.nlm.nih.gov/pubmed/19597071.

- ²⁵ Parkkari, J., A.Natri, P. Kannus, A. Mänttäri, R. Laukkanen, H. Haapasalo, et al., 'A controlled trial of the health benefits of regular walking on a golf course', American Journal of Medicine (2000) 109: 102-8. http://www.amjmed.com/article/S0002b9343(00)00455b1/abstract.
- ²⁶ Physical Inactivity, World Heart Federation http://www.world-heart-federation.org/ cardiovascular-health/cardiovascular-disease-riskfactors/physical-inactivity/.
- ²⁷ Review: The benefits of physical activity for health and well-being, C3 Collaborating for Health http://www.c3health.org/wp-content/uploads/2009/09/C3-review-of-physical-activity-and-health-v-1-20110603.pdf.
- ²⁸ Macmillan Cancer Support, 'The importance of physical activity for people living with and beyond cancer: a concise evidence review' (2012): http:// www.macmillan.org.uk/Documents/AboutUs/ Commissioners/Physicalactivityevidencereview. pdf.
- ²⁹ Review: The benefits of physical activity for health and well-being, C3 Collaborating for Health http://www.c3health.org/wp-content/uploads/2009/09/C3-review-of-physical-activity-and-health-v-1-20110603.pdf.
- ³⁰ Parkkari, J., A.Natri, P. Kannus, A. Mänttäri, R. Laukkanen, H. Haapasalo, et al., 'A controlled trial of the health benefits of regular walking on a golf course', American Journal of Medicine (2000) 109: 102-8. http://www.amjmed.com/article/S0002b9343(00)00455b1/abstract.
- ³¹ Walking and health, Bupa http://www.bupa. co.uk/individuals/health-information/directory/w/ walking-health.
- ³² JE Ahslkog et al., 'Physical exercise as a preventive or disease-modifying treatment of dementia and brain aging', Mayo Clin Proc (2011) 86(9) 876-885: http://www.ncbi.nlm.nih.gov/pubmed/21878600.
- ³³ Walking and health, Bupa http://www.bupa. co.uk/individuals/health-information/directory/w/ walking-health.

- ³⁴ Garcia-Aymerich, J. et al., 'Risk factors of readmission to hospital for a COPD exacerbation: a prospective study', Thorax (2003) 58(2):100-5: http://www.ncbi.nlm.nih.gov/pubmed/12554887, cited in Cavill, N. and C. Foster, Health Benefits of Walking: The Evidence Base (2008): http://nationalcampaignforwalking.net/evidence/.
- ³⁵ Wen, C.P. et al., 'Minimumamount of physical activity forreducedmortality and extended life expectancy: a prospective cohortstudy', The Lancet (2011) 378: 9798: 1244 -53: http://www.thelancet.com/journals/lancet/article/PIIS0140Đ6736%2811%2960749Đ6/abstract.
- 36 Lamb, S.E., H.P. Bartlett, A. Ashley and W. Bird, 'Can lay-led walking programmes increase physical activity in middle aged adults? a randomised controlled trial', Journal of Epidemiology and Community Health (2002) 56: 246-25: http://jech. bmj.com/content/56/4/246.abstract; J. Parkkari, et al., 'a controlled trial of the health benefits of regular walking on a golf course', American Journal of Medicine (2000) 109: 102-8: http:// www.ncbi.nlm.nih.gov/pubmed/10967150; Zunft, H.F., et al., 'perceived benefits and barriers to physical activity in a nationally representative sample in the european union', Public Health Nutrition (1999) 2: 153-60: http://journals. cambridge.org/action/displayabstract?frompage= online&aid=554588.
- ³⁷ Hu, P. and T. Reuscher, Summary of Travel Trends (2004, Washington, DC: U.S. Department of Transportation): http://nhts.ornl.gov/2001/pub/ stt.pdf.
- National Center for Safe Routes to School, How Children get to School: School Travel Patterns from 1969 to 2009 (2011): http://www.saferoutesinfo.org/sites/default/files/resources/NHTS_school_travel_report_2011_0.pdf, p. 2. Killoran, A., et al., Transport Interventions promoting Safe Cycling and Walking: Evidence Briefing (2006): https://nice.org.uk/nicemedia/pdf/Transport_Evidence_Briefing_05-07.pdf, Table 1, p. 10.



