



Every Move Counts

National Physical Activity and Sedentary Behaviour Guidelines for Ireland:
For People Living with Chronic Conditions



Chronic Conditions



At least
2 hrs 30 min
per week



On at least
2
days per week
Muscle strengthening
activities

Older adults to include balance and
functional exercises



**As much
as you
can**

**Begin with
small amounts
of activity and
build gradually**

Limit sedentary time

Every Move Counts



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Foreword

Chief Medical Officer-Professor Mary Horgan



I am very pleased to welcome the publication of these important guidelines on Physical Activity and Sedentary Behaviour For People Living with Chronic Conditions.

The promotion of physical activity is an essential part of our work to promote health and wellbeing. Regular physical activity is a known protective factor for the prevention and management of non-communicable diseases, and also has benefits for mental health, delays the onset of dementia, and can contribute to overall health and well-being.

In recognition of this, the Healthy Ireland Framework and Strategic Action Plan included the development of a plan to promote physical activity as part of the theme of developing partnerships and cross sectoral work.

This commitment saw the development of a cross-sectoral policy to promote physical activity, resulting in the publication, in 2016, of the first National Physical Activity Plan. This drew on the original 2009 National Guidelines on Physical Activity for Ireland to describe the appropriate levels of health enhancing physical activity for the Irish population.

These 2009 guidelines were themselves updated with the release in 2024 of “Every Move Counts - National Physical Activity and Sedentary Behaviour Guidelines for Ireland”.

“Every Move Counts” was informed by and based on the latest guidance from the World Health Organization, published in 2020, and also on a comprehensive review of evidence published since the WHO 2020 Guidelines.

The development of new national guidelines, tailored to the diverse range of population cohorts in the country, is particularly timely in light of the imminent publication of the new National Physical Activity Framework. Together with its accompanying Action Plan, this Framework will guide the development of physical activity policy and initiatives over the period to 2040.

I want to pay tribute to the research team who developed these additional guidelines. Similar to the approach used for “Every Move Counts”, the team has also developed educational messages for public and professional audiences which will be of enormous assistance in our ongoing work of communicating the health benefits of physical activity.

As the guidelines note, physical activity is generally safe and broadly beneficial for people living with chronic conditions. This addition to the “Every Move Counts” guidelines will help guide our work in surveillance, policy and implementation, and will ensure that professionals and practitioners can embed, support, and recommend physical activity confidently.

A handwritten signature in black ink that reads "Mary Horgan". The signature is written in a cursive, flowing style.

Chief Medical Officer-Professor Mary Horgan

**National Clinical Advisor & Group Lead for Chronic Disease
Dr Sarah M O'Brien.**

I am delighted to see the publication of physical activity and sedentary behaviour guidelines for people living with Chronic Conditions in Ireland. I commend the research team for their work and acknowledge my colleagues in the Healthy Eating Active Living Programme, HSE and Department of Health on successfully commissioning this important document.

Physical activity has been described as a 'wonder drug' because of how it positively impacts on physical and mental health. A large body of national and international evidence recognises the immense health benefits of participation in regular physical activity. However, despite this we know nearly two thirds of the population living in Ireland remain insufficiently active. High levels of inactivity are particularly true for people living with chronic conditions despite the evidence indicating that being physically active can help slow or stop progression of disease, reduce the risk of complications developing and improve quality of life.

The Every Move Counts - National Physical Activity and Sedentary Behaviour Guidelines for Ireland for the general population were published in February 2024. To have these guidelines extended to provide guidance on physical activity for individual living with chronic disease is an important step forward. We need to remove any myths or narrative that it is not safe for people living with chronic conditions to be active. These guidelines, based on strong research evidence and stakeholder involvement, articulate the importance of staying active for this population. As the guidelines state, there are few reasons that a person living with a chronic condition cannot be active.

Addressing physical inactivity requires a 'whole-system' approach with actions across multiple sectors - at government level, in schools, in workplaces, in how we design and build the places we live in. The health sector is one part of this 'whole-system', and it is important that we play our part through implementing these guidelines to support people to live well with chronic conditions in the community.



A handwritten signature in black ink, appearing to read 'Sarah O'Brien'.

National Clinical Advisor and Group Lead for Chronic Disease
Dr Sarah M O'Brien

Introduction

The updated National Physical Activity and Sedentary Behaviour Guidelines for Ireland, *Every Move Counts*, were published in 2024. These detail guidelines for the following population groups; children under 5 years, children and adolescents between 5 – 17 years, children and adolescents living with disability, adults between 18 – 64 years, older adults over 65 years and adults living with disability. The guidelines presented in this document provide an extension to the 2024 guidelines, including guidance for people living with chronic conditions.

The World Health Organisation (WHO) published *Guidelines on Physical Activity and Sedentary Behaviour* in 2020 that included specific guidelines for Adults and Older Adults Living with Chronic Conditions. These WHO Guidelines also offer ‘Good Practice Statements’ to assist physical activity efforts. Many countries now detail specific guidelines for adults with chronic conditions. The guidelines below are the first such guidelines in Ireland. They are based on an evidence summary that builds on the WHO 2020 Guidelines and the associated WHO Evidence Profiles, with consideration of other international guidelines.

Every Move Counts places particular emphasis on optimal messaging for professional and public audiences, underpinned by evidence and consultation with stakeholders. The guidelines for chronic conditions follows a similar approach, with messaging to educate and motivate the public and support professional audiences who will likely engage with people with chronic conditions with respect to their physical activity.

This document presents:

- Physical Activity and Sedentary Behaviour Guidelines for adults with chronic conditions
- Specific Population considerations that refine and nuance the guidelines for specific chronic condition groups
- Good Practice Statements specific to people with chronic conditions, statements to assist with becoming active and statements related to physical activity risk management
- Messaging for People with Chronic Conditions that strives to engage, motivate and educate them in relation to increasing physical activity and reducing sedentary behaviour
- Messaging for Healthcare Professionals and Exercise and Physical Activity Professionals that strives to educate and support them as they engage with people with chronic conditions in relation to their physical activity
- Messaging for Policy and Decision Makers that advocates for other initiatives to support the implementation of the guidelines to increase levels of physical activity in people with chronic conditions.

The HSE and Department of Health would like to acknowledge the kind permission of WHO to adapt elements of the WHO Guidelines on Physical Activity and Sedentary Behaviour. Geneva: World Health Organization; 2020 which was published under the Creative Commons Attribution-Non Commercial-Share Alike 3.0 IGO license.



National Physical Activity and Sedentary Behaviour Guidelines for People with Chronic Conditions in Ireland

These national physical activity guidelines are public health guidelines for adults living well with chronic conditions irrespective of age, fitness level or previous physical activity. This includes people with more than one condition, known as multi-morbidity. People undergoing acute treatments, those not yet stable on medication and those with complex medical needs should seek further advice from a healthcare professional prior to commencing physical activity.

For people living well with chronic conditions, physical activity is generally safe and broadly beneficial for health and wellbeing. By engaging in regular physical activity, people with chronic conditions can, in many cases, slow condition progression, prevent further complications and comorbidities, relieve symptoms and reduce mortality. Regular physical activity can improve functional capacity, support self-management, reduce depression and anxiety and improve quality of life. There are both immediate health benefits from the last physical activity bout and longer-term adaptations from regular activity. These health benefits occur in the absence of weight loss.

Guidelines:

It is recommended that:

- Adults with chronic conditions should undertake regular physical activity to include both muscle-strengthening activities and aerobic physical activity.
- Adults with chronic conditions should aim to undertake between 2 hours and 30 minutes and 5 hours of moderate intensity aerobic physical activity per week; or between 1 hour and 15 minutes and 2 hours and 30 minutes of vigorous intensity aerobic physical activity per week; or a combination of both.
- Adults with chronic conditions should undertake muscle strengthening activities at moderate or greater intensity that involve all major muscle groups on 2 or more days per week.
- Older adults living with chronic conditions should undertake multicomponent balance and functional exercises on 3 or more days of the week to enhance functional capacity and prevent falls.
- Adults with chronic conditions should aim to engage in as much physical activity as is manageable according to their abilities, if not able to achieve the guidelines.

It is recommended that:

- Adults with chronic conditions should limit the amount of time spent being sedentary. Replacing sedentary time with physical activity of any intensity (including light intensity) provides health benefits.



Specific Populations (recommendations that refine the guidelines for specific chronic conditions)

Cardiovascular Disease

Physical activity on most days of the week is encouraged for individuals with hypertension as some of the benefits to blood pressure last for a limited period after each activity bout.

Physical activity that is intermittent, i.e. short bouts with rest periods, may be more tolerable for some individuals, including those with intermittent claudication.

Living With and Beyond Cancer

Benefits from physical activity can still be achieved with intensities and volumes below those recommended in the guidelines when physical function is low and in the presence of cancer-related fatigue, treatment side effects or treatment late effects. Physical activity should not be avoided due to fatigue.

Diabetes

Physical activity on most days of the week is encouraged for individuals with diabetes as some of the physical activity benefits related to glucose control and insulin sensitivity last for a limited period after each activity bout.

Risk of Frailty

Physical activity that focuses on muscle strengthening should be prioritised over aerobic physical activity where a person is at risk of frailty or has reduced muscle mass.

Mental Health Conditions

Physical activity that one finds meaningful, enjoyable and creates opportunities for social interaction can optimise the mental health benefits.

Neurological Conditions

Multi-component physical activity, i.e. that involves flexibility, balance and functional movement, on 3 or more days per week at a moderate intensity or greater should be encouraged for individuals with neurological conditions such as Multiple Sclerosis or Parkinson's Disease.

Obesity

The guidelines to include moderate to vigorous aerobic physical activity and muscle strengthening physical activities are appropriate for people living with obesity to target increases in aerobic fitness and metabolic health, maintenance of muscle mass, and small decreases in body fat including visceral fat.

Respiratory Conditions

Intermittent physical activity, i.e. short bouts of activity with rest periods, may be more tolerable for some individuals with respiratory conditions. Breathlessness related to exertion should not be feared or avoided.

Good Practice Statements

How to Get Active

Inactive adults should begin with small amounts of physical activity and gradually increase the frequency, duration and eventually the intensity over time.

Adherence to long-term physical activity is essential for many health benefits, so it is important to choose activities that are enjoyable and accessible.

Perceived exertion is a useful way to gauge activity intensity with moderate intensity physical activity feeling 'Somewhat Hard'.

Specialist advice from a professional with physical activity expertise may be helpful in tailoring physical activity for specific needs and challenges.

Adults with chronic conditions may need to give extra consideration to appropriate environmental conditions, clothing and footwear to help with balance, prevent overheating and maintain healthy feet.

A session of moderate to vigorous intensity physical activity should commence with lower intensity (or 'warm-up') and should end by transitioning back to lower intensity (or 'cool down').

Physical Activity Risk Reduction

For adults with well-managed chronic conditions, the health risks from NOT undertaking physical activity are greater than the health risks from engaging in physical activity.

Pre-participation medical clearance is generally unnecessary for adults with well-managed chronic conditions prior to beginning light or moderate-intensity physical activity not exceeding the demands of brisk walking or everyday living.

Those who require frequent visits to healthcare professionals for medical management, who are not stable on medications or who have health warning signs (e.g. chest pain, unusual shortness of breath, loss of consciousness, unusual fatigue) should seek medical advice before commencing physical activity.

Adults with chronic conditions should cease physical activity and consult a healthcare professional if unexpected changes or worsening of symptoms occur with physical activity.

It is important to start slowly and become habitually active over a period of months, with gradual increases in duration and then intensity. The greatest risks from physical activity occur in habitually inactive individuals who suddenly undertake strenuous physical activity.



Messages to communicate the guidelines

Messages for People with Chronic Conditions (Perceptions and Motivation)

Physical activity results in multiple health benefits, reducing the progression of many chronic conditions and improving fitness, mental health and quality of life.

The wide range of health benefits from physical activity are not dependent on weight loss.

Choose activities that you enjoy to help you stay active over the long-term.

Any physical activity is good physical activity. Short bouts of physical activity for transport, for recreation and around the home all add up to provide multiple health benefits.

Messages for People with Chronic Conditions (Knowledge)

Every Move Counts. If you cannot meet the physical activity guidelines straight away, you should start with as much physical activity as is manageable for you.

Engage in both muscle strengthening activity and aerobic physical activity for multiple health benefits.

Muscle strengthening recommendations can be met using exercises that use body weight, resistance bands or resistance equipment and that target major muscle groups.

Aerobic physical activity recommendations can be met through moderate intensity activity, vigorous intensity activity, or a combination of both. Walking, swimming, cycling, hand cycling and running are excellent forms of aerobic physical activity.

Some people prefer vigorous intensity physical activity which will leave you more breathless. If you are planning to take part in activities likely to be vigorous (e.g. football, running), progress to this intensity gradually over time.

Gradually increase the duration and frequency of physical activity over time before eventually increasing the intensity.

Try to limit the amount of time you spend inactive, such as sitting still. Replacing sitting time with any movement is beneficial.

For most people with chronic conditions, it is not necessary to obtain medical clearance prior to beginning light or moderate-intensity physical activity not exceeding the demands of brisk walking or everyday living. You can then progress this over time.

There are some warning signs that do require the attention of a healthcare professional such as chest pain, unusual shortness of breath, loss of consciousness or unusual fatigue.

Speak to a healthcare professional if the symptoms of your condition worsen from physical activity.



Key messages for Professionals and Practitioners

Messages for Healthcare Professionals

There is strong scientific evidence supporting the importance of physical activity for people with chronic conditions. There is evidence that physical activity can reduce mortality, slow the progression of certain conditions, prevent further complications and the development of comorbidities, relieve symptoms, support self-management, enhance functional capacity, improve key mental health outcomes and improve quality of life.

The benefits of being active for individuals with chronic conditions far outweigh the risks.

The greatest benefits occur when totally inactive individuals become somewhat active, with further benefits gained through further increases in physical activity. Every Move Counts.

There is a need for equal emphasis on muscle strengthening activities and aerobic physical activity.

Those who cannot meet the guidelines initially should begin physical activity with short durations of moderate intensity activity and build the duration gradually over time. They can accumulate physical activity over the day.

Separate to physical activity, prolonged sitting time is also harmful to health. Encourage people to break-up sedentary behaviour and replace with any movement.

Leverage opportunities to 'make every contact count'. People with chronic conditions are more likely to engage in physical activity if their healthcare professional recommends it.

People with chronic conditions experience complex barriers to activity, including fear and low self-confidence, which should be acknowledged when promoting physical activity.

Weight loss is not a good rationale for promoting physical activity, as weight loss from physical activity alone is small. Risk factor control, broader health and mental health benefits, and functional outcomes should be emphasised when promoting physical activity.

Pre-participation medical clearance is generally not necessary for most individuals with chronic conditions, particularly when commencing light or moderate-intensity physical activity not exceeding the demands of brisk walking or everyday living. Pre-participation clearance can act as a barrier to commencing physical activity.

Medical advice is warranted for people who require frequent visits for medical management, are not stable on medications, or have warning signs such as chest pain, unusual shortness of breath, loss of consciousness or unusual fatigue.



Messages for Physical Activity/Sport Professionals and Practitioners

There is strong scientific evidence supporting the importance of physical activity for people with chronic conditions. There is evidence that physical activity can reduce mortality, slow the progression of certain conditions, prevent further complications and the development of comorbidities, relieve symptoms, support self-management, enhance functional capacity, improve key mental health outcomes and improve quality of life.

The benefits of being active for individuals with chronic conditions far outweigh the risks.

The greatest benefits occur when totally inactive individuals become somewhat active, with further benefits gained through further increases in physical activity. Every Move Counts.

Those who cannot meet the guidelines initially should begin physical activity with short durations of moderate intensity activity and build the duration gradually over time. They can accumulate physical activity over the day.

There is a need for equal emphasis on muscle strengthening activities and aerobic physical activity.

Incremental increases in frequency and duration should be prioritised ahead of incremental increases in intensity.

Assist participants in gauging moderate and vigorous intensity physical activity using approaches such as the 'talk test', the 'rate of perceived exertion scale' or 'dyspnea rating scale'. This should be done without presenting vigorous physical activity as harmful.

Movements may need to be adapted for many individuals with chronic conditions due to movement restrictions, joint degeneration, pain, impaired motor control and surgeries. Be sensitive to these considerations and adapt physical activity when necessary.

People with chronic conditions experience complex barriers to activity, including fear and low self-confidence, which should be acknowledged when promoting physical activity.

Weight loss is not a good rationale for promoting physical activity, as weight loss from physical activity alone is small. Risk factor control, broader health and mental health benefits, and functional outcomes should be emphasised when promoting physical activity.

It is not necessary to send most individuals with chronic conditions for pre-participation medical clearance, particularly when commencing light or moderate-intensity physical activity not exceeding the demands of brisk walking or everyday living. Pre-participation clearance can act as a barrier to commencing physical activity.

Medical advice is warranted for people who require frequent visits for medical management, are not stable on medications, or have warning signs, such as chest pain, unusual shortness of breath, loss of consciousness or unusual fatigue.



Messages for Policy and Decision Makers

Standard care for people with chronic conditions in the healthcare system should involve signposting to physical activity pathways and opportunities.

Public health guidelines need to be translated into usable formats, including education resources to support implementation. Separate resources will be needed for professional groups and the public.

Education, including continuous professional development opportunities, are required for healthcare professionals and exercise and physical activity professionals to assist them in supporting people with a variety of chronic conditions to engage in physical activity.

There is a need for systems-level planning to ensure suitable and accessible community-based physical activity opportunities throughout Ireland for people with chronic conditions, with appropriate connectivity between the health and community-based sector.

Physical activity in people with chronic conditions should be monitored as part of national physical activity surveillance efforts.

People with chronic conditions should form a distinct population group in national physical activity planning efforts and be identified in future national physical activity implementation plans.

In healthcare, there should be routine assessment of physical activity in people with chronic conditions. For all insufficiently active individuals, provision of brief advice and/or brief intervention is warranted with appropriate physical activity pathways available for clinicians to signpost or refer people to appropriate physical activity opportunities.



Explanation of moderate and vigorous intensity, and sample activities

Sample Activities

Aerobic activities *

Walking
Running
Cycling
Swimming
Water aerobics
Sports (e.g. tennis, golf, soccer)
Dancing
Housework and gardening

Muscle-strengthening

Lifting weights
Working with resistance bands
Body weight exercises
Yoga
Pilates
Climbing
Repetitively lifting children or heavy items
Repetitive stair climbing
Wheeling a wheelchair

* The intensity of these aerobic activities may be moderate or vigorous depending on the effort applied and the fitness level of the participant. See physical activity intensity table below to assist with gauging the intensity of aerobic physical activity.

Physical Activity Intensity

	Light	Moderate	Vigorous
METs*	1.5 – 3	3 – 6	> 6
% Heart Rate max	50 – 63	64 – 76	77 – 93
Talk test	You can talk and sing without issue	You can talk but not sing during the activity	You will not be able to say more than a few words without pausing for a breath
Warmth	-	Warmer	Hot and sweating
RPE* (0 – 10 scale)	1 – 2	3 – 4	5 – 6

*METs express exercise intensity relative to the rate of resting energy expenditure. 1 MET is equivalent to an oxygen uptake of 3.5 ml/kg/min. RPE is the Rate of Perceived Exertion measured on the modified Borg 0 – 10 scale

Overview of Research Project to Develop the Guidelines

The extension of the National Physical Activity and Sedentary Guidelines for Ireland for People Living with Chronic Conditions was a multi-stage project which commenced in September 2024 and concluded in February 2025. Stage 1 - Evidence Review: The Adults and Older Adults with Chronic Conditions section of the World Health Organisation's 2020 Guidelines for Physical Activity and Sedentary Behaviour, the associated WHO Evidence Profiles, other international guidelines and relevant evidence published since the WHO 2020 Guidelines were reviewed. An evidence summary was prepared and submitted with the final research report. Stage 2- Drafting: A meeting of the project team was convened to agree upon the draft physical activity and sedentary behaviour guidelines and messages. Stage 3 - Consultation: Key stakeholders were consulted on the draft guidelines, messages for professionals and practitioners, and messages for the public. Online surveys were used to assess the perceptions of the professional and public audiences of the draft guidelines and messages. Stage 4 - National Stakeholder Meeting: Following the analysis of data from the surveys, a meeting was convened with national cross-sectoral experts relevant to chronic conditions to gain feedback on the proposed physical activity and sedentary behaviour guidelines for Ireland. Stage 5 - Consolidation and Refinement: The project team considered findings from the national stakeholder meeting and subsequent feedback from the HSE Healthy Eating Active Living team, national clinical leads and members of the Integrated Care Programme for the Prevention and Management of Chronic Disease before agreeing the final guidelines and messages.

References to the Evidence Summaries used to Develop the Guidelines

World Health Organization. Guidelines on physical activity and sedentary behaviour. Geneva: World Health Organization. 2020. Available: <https://www.who.int/publications/i/item/9789240015128>

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Glossary of Terms

Aerobic physical activity	Activity in which the body's large muscles move in a rhythmic manner for a sustained period of time. Aerobic activity – also called endurance activity – improves cardiorespiratory fitness. Examples include walking, running, swimming, and bicycling.
Aerobic fitness	A health-related component of physical fitness and describes the ability of the circulatory and respiratory systems to supply oxygen during sustained physical activity.
Balance activities	Static and dynamic exercises that are designed to improve an individual's ability to withstand challenges from postural sway or destabilizing stimuli caused by self-motion, the environment, or other objects.
Chronic condition	A long-term health conditions that require ongoing medical attention or limit activities of daily living or both
Comorbidities	The presence of one or more additional health conditions alongside the primary health condition
Dyspnea rating scale	Subjective evaluation of how strenuous an exercise feels to an individual based on ease of breathing. The Borg Dyspnea Rating Scale is a formal evaluation using a 0 - 10 numerical scale.
Exercise	A subcategory of physical activity that is planned, structured, repetitive, and purposeful in the sense that the improvement or maintenance of one or more components of physical fitness is the objective. "Exercise" and "exercise training" frequently are used interchangeably and generally refer to physical activity performed during leisure time with the primary purpose of improving or maintaining physical fitness, physical performance, or health.
Fitness	A measure of the body's ability to function efficiently and effectively in work and leisure activities, and includes, for example, physical fitness and cardiorespiratory fitness.
Flexibility	A health- and performance-related component of physical fitness that is the range of motion possible at a joint. Flexibility is specific to each joint and depends on a number of specific variables including, but not limited to, the tightness of specific ligaments and tendons. Flexibility exercises enhance the ability of a joint to move through its full range of motion.
Functional capacity	An individual's capability to perform tasks and activities that are necessary or desirable in their lives
Functional exercises	Exercises that can be embedded into everyday tasks to improve lower-body strength, balance, and motor performance. Examples include tandem and one-leg stands, squatting, chair stands, toe raises, and stepping over obstacles.
Light-intensity physical activity	Light-intensity physical activity is between 1.5 and 3 METs, i.e. activities with an energy requirement less than 3 times the rate of energy expenditure at rest. This can include slow walking, bathing, or other incidental activities that do not result in a substantial increase in heart rate or breathing rate. Light-intensity physical activity is usually 1 – 2 on the modified Borg 0 – 10 scale.
Major muscle groups	Major muscle groups include the legs, back, abdomen, chest, shoulders and arms.
Metabolic equivalent of task (MET)	The metabolic equivalent of task, or simply metabolic equivalent, is a physiological measure expressing the intensity of physical activities. One MET is the rate of energy expenditure by an individual while seated at rest is equivalent to an oxygen uptake of 3.5 ml/kg/min.
Moderate-intensity physical activity	Moderate-intensity physical activity is between 3 and 6 METs, i.e. activities with an energy requirement between than 3 and 6 times the rate of energy expenditure at rest. Moderate-intensity physical activity is usually 3 – 4 on the modified Borg 0 – 10 scale.
Muscle-strengthening activity	Physical activity and exercise that increase skeletal muscle strength, power, endurance, and mass (e.g. strength training, resistance training, or muscular strength and endurance exercises).

Multicomponent physical activity	For older adults, multicomponent physical activity is important to improve physical function and decrease the risk of falls or injury from a fall. These activities can be done at home or in a structured group setting. Many studied interventions combine all types of exercise (aerobic, muscle strengthening, and balance training) into a session, and this has been shown to be effective. An example of a multicomponent physical activity programme could include walking (aerobic activity), lifting weights (muscle strengthening), and incorporates balance training. Examples of balance training can include walking backwards or sideways or standing on one foot while doing an upper body muscle-strengthening activity, such as bicep curls. Dancing also combines aerobic and balance components.
Multi-morbidity	The presence of two or more chronic medical conditions in an individual
Physical activity	Any bodily movement produced by the skeletal muscles that requires energy expenditure and includes movement for leisure, transport, occupation and in the household
Perceived exertion or Rate of Perceived Exertion (RPE)	Subjective evaluation of how strenuous an exercise feels to an individual. Rate of perceived exertion is a formal evaluation using a tool, most commonly a numerical scale. The modified Borg Rating of Perceived Exertion (RPE) scale uses a 0 – 10 numerical scale.
Sedentary behaviour	Any waking behaviour characterised by an energy expenditure of 1.5 METS or lower while sitting, reclining, or lying. Most desk-based office work, driving a car, and watching television are examples of sedentary behaviours; these can also apply to those unable to stand, such as wheelchair users. The guidelines operationalize the definition of sedentary behaviour to include self-reported low movement sitting (leisure time, occupational, and total), television (TV viewing or screen time, and low levels of movement measured by devices that assess movement or posture).
Talk test	A way to understand and gauge the intensity of aerobic activity that is based on the ease of talking during physical activity. Moderate intensity is sometimes explained as the ability to hold a conversation during physical activity but not sing.
Vigorous physical activity	Vigorous-intensity physical activity is greater than 6 METs, i.e. activities with an energy requirement greater than 6 times the rate of energy expenditure at rest. Vigorous-intensity physical activity is usually 5 – 6 on the modified Borg 0 – 10 scale.
Visceral fat	Fat found deep within the abdominal cavity that surrounds important organs that is more dangerous to metabolic health.







