

# Non-Communicable Diseases Watch

July 2023



衛生防護中心  
Centre for Health Protection



衛生署  
Department of Health

## Make Physical Activity a 'Must Do' Habit

### Key Messages

- ※ For health, the World Health Organization (WHO) recommends adults aged 18 and above (including those living with chronic conditions or disability) to do at least 150–300 minutes of moderate-intensity aerobic physical activity; or at least 75–150 minutes of vigorous-intensity aerobic physical activity; or an equivalent combination of moderate- and vigorous-intensity activity throughout the week. In addition, they should limit the amount of time spent being sedentary and replace sedentary time with physical activity of any intensity (including light-intensity physical activity).
- ※ The Department of Health (DH) of the Hong Kong Special Administrative Region conducted the Population Health Survey 2020–22 and observed that 24.8% of adults aged 18 or above did not meet the WHO's recommended levels of aerobic physical activity. Among persons aged 15 or above, 14.9% of them reported spending 10 hours or longer on average per day sitting or reclining.
- ※ For inactive adults or those who are insufficiently active, they are urged to appreciate the health benefits of physical activity and make a sensible choice and become more active. While physical activity comes in many forms, individuals can select activities that are accord to their interest, time availability, skills, health status or fitness level.
- ※ The DH will continue organising health promotional campaigns using a variety of strategies to raise public awareness about the benefits of physical activity, and working closely with relevant stakeholders as well as community partners to integrate physical activity into daily living.

# Make Physical Activity A ‘Must Do’ Habit

Physical activity refers to any bodily movement produced by skeletal muscles that require energy expenditure<sup>1</sup>. It can be undertaken as part of recreation and leisure (play, games, sports or planned exercise), transportation (walking and cycling), work or household chores, in the context of daily occupational, educational, home and community settings. Depending on the amount of physical effort and energy individuals put in, physical activity can be placed along a continuum from sedentary activity characterised by low level of energy expenditure with less than or equal to ( $\leq$ ) 1.5 metabolic equivalents (METs) to vigorous-intensity physical activity with greater than or equal to ( $\geq$ ) 6.0 METS (Table 1)<sup>2</sup>. While higher amounts of sedentary behaviour are associated with increased chronic disease risk and early death, any kind of physical activity is good for both physical and mental health as long as individuals do it safely<sup>1</sup>.

## Recommendations on Physical Activity and Sedentary Behaviour

The World Health Organization (WHO) Guidelines on Physical Activity and Sedentary Behaviour<sup>3</sup> provide evidence-based public health recommendations for different age groups and specific populations on the amount of physical activity (frequency, intensity and duration) required to offer significant health benefits and mitigate health risks. For adults aged 18 and above (including those living with chronic conditions or disability), the WHO recommends that they should do at least 150–300 minutes of moderate-intensity aerobic physical activity; or at least 75–150 minutes of vigorous-intensity aerobic physical activity; or an equivalent combination of moderate- and vigorous-intensity activity throughout the week. For additional health benefits, they should do muscle-strengthening

**Table 1: Physical activity continuum**

Activity	Sedentary activities	Light-intensity physical activities	Moderate-intensity physical activities	Vigorous-intensity physical activities
<b>Talk Test Indicator</b>	-	Able to sing while doing the activity	Able to carry on a conversation comfortably while doing the activity	Become winded or out of breath when carrying on a conversation
<b>MET*</b>	$\leq 1.5$	1.6 – 2.9	3.0 – 5.9	$\geq 6.0$
<b>Examples</b>	<ul style="list-style-type: none"> <li>sitting, reclining or lying while watching TV, playing computer games or reading</li> <li>sitting while typing or doing other deskwork,</li> <li>riding in a car, bus train or tram</li> </ul>	<ul style="list-style-type: none"> <li>standing</li> <li>slow walking</li> <li>mild stretching</li> <li>home activities (light efforts), such as dusting off surfaces, washing dishes, or ironing clothes</li> </ul>	<ul style="list-style-type: none"> <li>brisk walking</li> <li>stair walking (slow)</li> <li>cycling (slow)</li> <li>swimming (slow)</li> <li>home activities (moderate efforts) such as scrubbing floors, bathroom or bathtub</li> </ul>	<ul style="list-style-type: none"> <li>jogging or running</li> <li>cycling (fast)</li> <li>swimming (fast)</li> <li>aerobic dancing</li> <li>competitive sports, such as playing football, basketballs, badminton</li> <li>home activities (vigorous efforts), such as moving household items upstairs, carrying boxes or furniture</li> </ul>

Note: \*Metabolic equivalent (MET) is a unit to indicate the amount of oxygen or energy the body uses during physical activity. The harder the body work during any given activity, the more oxygen is consumed, and the higher the MET level.

activities at moderate or greater intensity that involve all major muscle groups 2 or more days a week. To enhance functional capacity and to prevent falls, elders aged 65 and above should do varied multicomponent physical activity that emphasises functional balance and strength training at moderate or greater intensity, on 3 or more days a week, as part of their weekly physical activity. In addition, adults should limit the amount of time spent being sedentary and replace sedentary time with physical activity of any intensity (including light-intensity physical activity).

### Levels of Physical Activity

Despite the known health benefits of regular participation in physical activity, more than one-quarter of the world’s adult population are insufficiently active<sup>1</sup>. Even though prolonged sitting is detrimental to health, sedentary lifestyle prevails among city dwellers<sup>4, 5</sup>.

Locally, the Department of Health (DH) of the Hong Kong Special Administrative Region (SAR) conducted the Population Health Survey (PHS) 2020–22<sup>6</sup> and observed that over four-fifths (80.7%) of persons aged 15 or above had not undertaken any vigorous-intensity physical activities and nearly one-tenth (9.6%) had not undertaken any moderate-intensity physical activities in a typical week. Overall, 24.8% of adults aged 18 or above did not meet the WHO’s recommended levels of aerobic physical activity (Table 2). Regarding sedentary behaviour, 14.9% of persons aged 15 or above reported spending 10 hours or longer on average per day sitting or reclining. The mean duration of sedentary behaviour on a typical day was about 6.8 hours<sup>6</sup>.

**Table 2 : Level of physical activity among local population by sex**

	Male	Female	Overall
Proportion of persons aged 15 or above who had NOT performed any vigorous-intensity physical activity* in a typical week	73.9%	86.7%	80.7%
Proportion of persons aged 15 or above who had NOT performed any moderate-intensity physical activity** in a typical week	9.6%	9.6%	9.6%
Proportion of persons aged 18 or above who did NOT meet the WHO’s recommended levels of aerobic physical activity	22.8%	26.5%	24.8%
Proportion of persons aged 15 or above who reported spending 10 hours or more on average per day on sitting or reclining	14.5%	15.3%	14.9%

Notes: \*Vigorous-intensity physical activity refers to work- or recreational-related activity that causes large increase in breathing or heart rate for at least 10 minutes continuously. \*\*Moderate-intensity physical activity refers to work-, recreational- or transported-related (i.e. walking or using bicycle to or from places) activity that causes small increases in breathing or heart rate for 10 minutes continuously.

Source: Population Health Survey 2020–22.

## Behavioural Change for Becoming More Physically Active

To reverse an unhealthy habit like being physically inactive can be challenging. Individuals may have various reasons (or excuses) for not becoming more active. The PHS 2020–22 found that over half of persons aged 35–44 (52.9%) and persons aged 45–54 (52.1%) claimed that they did not perform moderate- or vigorous-intensity sports, fitness or recreational physical activities because of “feeling too tired and exhausted after work, study or doing household chores”; more than half of persons aged 25–34 (51.3%) and persons aged 35–44 (51.7%) cited “too busy or no spare time”; and about half of persons aged 15–24 (47.3%) admitted that they were “too lazy” to workout<sup>6</sup>.

While establishing the habit of regular exercise usually involves a gradual progression (e.g. from no intention of being physically active, to thinking about becoming more active, participating in physical activity on a regular basis and sustaining the workout habit<sup>7</sup>), it also requires a strategic approach to the barriers for being physically active. For inactive adults or those who are insufficiently active, they are urged to appreciate the health benefits of physical activity (Box 1), make a sensible choice and become more active. Individuals who have a hectic life should note that there are ways to overcome the barriers and help them make physical activity part of their daily life (Table 3). Studies showed that small increases in non-occupational physical activity (e.g. brisk walking) would offer substantial protection against various chronic diseases<sup>8</sup>. Compared with those who did not engage in any vigorous-intensity lifestyle physical activity, those who engaged in 3 daily bouts

lasting 1–2 minutes each of vigorous-intensity lifestyle physical activity (such as bursts of very fast walking while commuting to work or from place to place) would have 38–49% reduction in all-cause, cancer and cardiovascular disease mortality risk<sup>9</sup>. While physical activity comes in many forms, individuals can select activities that are accord to their interest, time availability, skills, health status or fitness level. For those who are used to be sedentary or living with a chronic illness, walking is an easy and feasible starting point for developing a more active lifestyle. They can start out with short distances and slow speeds, and then gradually increase the walking frequency, speed and duration. Walkers can also use step counter applications (apps) of smart-phones or other wearable devices (such as smart watches or fitness trackers) to monitor progress and stay motivated. If prolonged sitting is not avoidable (e.g. for work), it is advisable to break up long periods of sitting time and incorporate frequent standing or stepping on the spot.

### Box 1: Health Benefits of Physical Activity (for Adults)<sup>1,10</sup>

A single bout of moderate-to vigorous physical activity provides immediate health benefits.

- \* Improves sleep quality
- \* Reduces feelings of anxiety
- \* Reduces blood pressure

Regular physical activity provides important health benefits for chronic disease prevention.

- \* Lowers risk of hypertension, heart disease, stroke, and type 2 diabetes
- \* Lowers risk of certain types of cancer, including breast cancer and colon cancer
- \* Reduces risk of overweight and obesity
- \* Reduces risk of depression
- \* Reduces risk of cognitive impairment
- \* Reduces risk of osteoporosis and falls

**Table 3: Suggestions for overcoming some common barriers to physical activity**

Barriers	Suggestions
<p><b>Feeling too tired or exhausted</b></p>	<ul style="list-style-type: none"> <li>* Schedule physical activity during the time of day when feeling more energetic</li> <li>* Have regular meals and eat a healthy diet to help boost energy levels and fight fatigue</li> <li>* Start with small amount of exercise and build it up gradually with longer duration and greater intensity</li> </ul>
<p><b>Too busy or no spare time</b></p>	<ul style="list-style-type: none"> <li>* Review daily schedule and put aside 10, 15 or 20 minutes two or three times every day for physical activity</li> <li>* Do household chores as a means of exercise</li> <li>* Incorporate physical activity, small walks or stand-ups into daily routines, such as getting off the bus or train earlier and walking the rest of the way; climbing the stairs instead of taking the lift or escalator; stepping on the spot while watching television; pacing around while talking on the phone; standing up while folding laundry, ironing or performing other household chores</li> </ul>
<p><b>Workout laziness, lack of company or motivation</b></p>	<ul style="list-style-type: none"> <li>* Choose activities that are enjoyable</li> <li>* Set achievable targets and start up with a slow course</li> <li>* Invite a friend, colleague or family member to exercise together on a regular basis</li> <li>* Take dog for walks</li> <li>* Join exercise classes or dance lessons and exercise along with the instructors and other participants</li> <li>* Join a physical activity challenge, such as a walking challenge. Buddy up with friends or family members, text and send each other an “accomplishment emoji” when the step goal is achieved</li> <li>* Use motivational tools, such as workout apps, to monitoring progress and stay motivated</li> </ul>
<p><b>Lack of skills or resources</b></p>	<ul style="list-style-type: none"> <li>* Select activities that require minimal skills or facilities, such as walking and climbing stairs</li> <li>* Use plastic bottles containing about 500 ml of water, or a heavy book as weights for bicep workouts; a sturdy stool for step-up exercise; a towel for resistance training</li> <li>* Identify inexpensive, convenient resources available in the community, such as locating nearby parks or walking paths; checking out community recreation and sport programmes organised by the Leisure and Cultural Services Department (<a href="https://www.lcsd.gov.hk/">https://www.lcsd.gov.hk/</a>)</li> </ul>



Of note, exercise progression would vary from person to person. Some may require a few weeks to reach the required levels of physical activity, while some may proceed slowly and need more time for establishing exercise habits. During the process, people may have experienced lapses (e.g. skipped a workout or two) or even relapses (i.e. returning to inactivity). They should not be disheartened but strive to identify the barriers, adjust the routine and find corresponding countermeasures. In time, small changes can lead to a big transformation and a healthy active life. For increasing population's participation in physical activity, the DH will continue organising health promotional campaigns using a variety of strategies to raise public awareness about the benefits of physical activity, and working closely with relevant stakeholders as well as community partners to integrate physical activity into daily living.

### References

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The Leisure and Cultural Services Department (LCSD) will hold the Sport For All Day 2023 on 6 August 2023 (Sunday). This year, the slogan will remain “Stay Active, Healthy and Happy!” to encourage people of all ages and abilities to engage in regular sports and physical activities, and promote the benefits of exercise for the body and mind. The focal sport of Sport For All Day this year is “Fitness Exercise for Wellness”. On the event day, a series of free sports and recreation programmes will be offered at designated LCSD venues across the 18 districts, while most of the LCSD leisure facilities will be open for free use by the public. Sports demonstrations will also be webcasted through this dedicated webpage and online platforms on that day. These fitness exercises are suitable for practice by any people at any place. Viewing and participation by members of the public are welcome. For details of the Sport For All Day 2023, please visit the website at [www.lcsd.gov.hk/en/sfad](http://www.lcsd.gov.hk/en/sfad).

*Non-Communicable Diseases (NCD) WATCH is dedicated to promote public's awareness of and disseminate health information about non-communicable diseases and related issues, and the importance of their prevention and control. It is also an indication of our commitments in responsive risk communication and to address the growing non-communicable disease threats to the health of our community. The Editorial Board welcomes your views and comments. Please send all comments and/or questions to [so\\_dp3@dh.gov.hk](mailto:so_dp3@dh.gov.hk).*

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