Non-Communicable Diseases Watch

June 2020

衞生防護中心 Centre for Health Protection

衞生署 Department of Health

Stay Physically Active While Staying At Home

Key Messages

※ In the wake of the coronavirus disease 2019 (COVID-19) pandemic, we need to stay fit and healthy with a strong immune system. Physical activity can boost immune system and defend the body from infections including respiratory infections. Even when we stay at home without going outdoors or fitness centres for gym facilities, it is possible to have sufficient physical activity.

※ Home-based exercises require no special equipment and are easy to do on our own, with kids or other family members. Moving around with a broomstick/vacuum cleaner and washcloth for household clean-up can also add up to substantial amounts of physical activities with an added bonus of having a clean home.

※ Active videogames (or exergames) are an entertaining mode of home-based exercises that can help to increase physical activity levels. But we should be mindful about how much time spent in front of a screen every day, take regular breaks from on-screen activities, and be sure to maintain a balance between online and offline activities in our daily life.

※ Prolonged sitting harms health. We should limit our chair-time and break up long periods of sitting. We can also incorporate stand-ups and small walks into daily routines, such as standing or stepping on the spot while watching television; doing toe lifts or pacing around while talking on the phone; standing up while folding laundry, ironing or performing other sit-down tasks.

※ To keep the COVID-19 at bay, we all have a responsibility. Let's move for health while staying at home and observing social distancing. For more information about the COVID-19 situation and relevant health advice, please visit the www.coronavirus.gov.hk/eng/index.html.

This publication is produced by the Non-communicable Disease Branch, Centre for Health Protection of the Department of Health

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Stay Physically Active While Staying At Home

In the wake of the coronavirus disease 2019 (COVID -19) pandemic, members of the public are urged to, inter alia, go out less and stay at home as far as possible which is instrumental in limiting the infections from spreading widely. However, staying at home for prolonged periods can pose challenges to maintaining physical and mental health. While taking precautions, we also need to stay fit and healthy with a strong immune system. There is sufficient evidence that any kind and intensity of physical activity can be good for health.[1] Regardless of age, sex or body size, physical activity provides various health benefits and reduces the risk of a number of non-communicable diseases (NCDs) (Box 1).[2, 3] Compared to people who are sufficiently active, those who are insufficiently active would have 20% to 30% increased risk of death.[1] Even light-intensity activity (such as standing) can help reduce the risk of death.[4] Besides, moderate-intensity physical activity can boost immune system and defend the body from infections including respiratory infections.[5]

For optimal health, the World Health Organization (WHO) recommends adults to engage in at least 150 minutes of moderate-intensity physical activity or equivalent amount per week, as well as muscle-strengthening activities involving major muscle groups on two or more days a week. For children and adolescents aged 5–17, they should do at least 60 minutes of moderate- to vigorous-intensity physical activity daily and include activities that strengthen muscle and bone at least 3 times per week.[1] In this time of staying at home and social distancing for reducing the spread of COVID-19, to remain physically active seems challenging. But in fact it is possible to have sufficient physical activity according to WHO's recommendation even when we stay at home without going outdoors or fitness centres for gym facilities.

Box 1: Health benefits associated with regular physical activity[2, 3]

Children and Adolescents

- Improved bone health (ages 3 through 17 years)
- Improved weight status (ages 3 through 17 years)
- Improved cardiorespiratory and muscular fitness (ages 6 through 17 years)
- Improved cognition (ages 6 to 13 years, with better academic achievements)
- Reduced risk of depression (ages 6 to 13 years)

Adults and Older Adults

- Lower risk of all-cause mortality
- Lower risk of cardiovascular disease (including heart disease and stroke) mortality
- Lower risk of cardiovascular disease
- Lower risk of hypertension
- Lower risk of type 2 diabetes
- Lower risk of certain cancers (including cancers of the colon, breast and endometrium)
- Lower risk of adverse blood lipid profiles
- Improved cognition
- Reduced risk of dementia (including Alzheimer disease)
- Reduced anxiety
- Reduced risk of depression
- Improved sleep
- Prevention of weight gain or promotion of weight loss (particularly when combined with reduced calorie intake)
- Improved bone health
- Improved physical function
- Improved quality of life
- Lower risk of falls (older adults)
- Lower risk of fall-related injuries (older adults)

Home-based Exercises

To facilitate individuals in staying physically active while at home, WHO has developed a guidance with some home-based exercise examples[6] to help people integrate simple, safe ways to stay active in limited space. The guidance also takes account of the physical challenges of working from home, offering tips on how to incorporate body movement into daily routines. Such general examples (such as knee to elbow, squats, plank and bridge) provided by WHO require no special equipment and are easy to do on our own, with kids or other family members.[6] Still, we should do the exercises according to our own capacities. People who are living with a chronic disease, having any symptoms or diagnosis of acute respiratory illness may consult a doctor prior. For healthy and energetic individuals, they can go for more higher-intensity workouts, such as jumping jack, push-up, abdominal crunch sit up or mountain climber, etc. To keep motivated, we can buddy up with friends or family members, text and send each other an 'accomplishment emoji' when completed the daily workouts with another exercise challenge. At home, we can also dance with music, practise Tai Ji Quan, step over obstacles (such as low stool or pile of books), carry or lift groceries with moderate weights (such as plastic water bottles containing about 500 ml of water or a 5 kg bag of rice), use a towel for resistance training, or even just walk (on the toes or heels) inside the house.

Household Chores

Doing household chores is a great way to exercise the muscle and burn calories while staying at home. Moderate-intensity home activities include making beds and changing linens, scrubbing bathroom or bathtub, sweeping floor with some efforts, etc.[7] An adult of medium-built could expend about 150 calories through general dusting, sweeping the floor or vacuuming for about 45–60 minutes.[8] We can increase the intensity of household chores by using time limits, such as designating two songs to wash the dishes or three songs to clean the living room. Hence, just being on our feet and moving around the house with a broomstick/vacuum cleaner and washcloth for household clean-up can add up to substantial amounts of physical activities with an added bonus of having a clean home.

Active Videogames

When staying at home for prolonged periods, it is tempting to sit down and use electronic screen products, such as videogames that is particularly true for children and adolescents. As there are various kinds of videogames available in the market with potentially positive or negative impacts on health, we should be smart by choosing the appropriate kind of videogames that could benefit physical and mental health. Integrating physical activity and exercise with appealing digital games, exergames are an entertaining mode of home-based exercises with many modalities that can help increase physical activity levels. Depending on the design and system of the exergames, players can choose from muscle-strengthening workouts, balance and stretching games, aerobic exercises or dances, martial arts, or simulated recreational activities (such as boxing, ping-pong, tennis, golf, bowling, swimming, rowing, skiing, etc).[9, 10] Although active videogames can be used to increase the daily dose of physical activity, we should be mindful about how much time spent in front of a screen every day, take regular breaks from on-screen activities and be sure to maintain a balance between online and offline activities in our daily life.[11]

Reduced Sitting Time

Prolonged home stay may lead to increased sedentary behaviours, such as spending excessive amounts of time sitting, reclining, or lying down (for watching television or videos, indulging in Internet activities or engaging in other screening activities). Any extended sitting will have detrimental effects on health. It can increase the risk of obesity, cause deep vein thrombosis, and lead to muscle stiffness or low back pain. Regardless of physical activity level, higher total or prolonged sitting time are associated with increased risks of NCDs including cardiovascular disease, type 2 diabetes and certain cancers.[12]

In contrast, simply standing up would engage muscles and enable body metabolise fat in a healthy way; breaks in sedentary time (e.g. light walking for one minute) might have positive effect on glycaemic control.[13, 14] As prolonged sitting harms health, members of the public are urged to limit chair-time and incorporate stand-ups and small walks into daily routines, such as standing or stepping on the spot while watching television; doing toe lifts or pacing around while talking on the phone; standing up while folding laundry, ironing or performing other sit-down tasks; and doing leg raise or ankle rotation exercise as often as possible while sitting.

Making Physical Activity a "Must Do" Habit

Of note, reports from Mainland China and other countries indicate that hypertension, heart disease, stroke, diabetes and chronic obstructive pulmonary disease are significant risk factors for patients with COVID-19.[15, 16] People who are overweight or obese are also at greater risk of serious COVID-19 illness and complications than people with a lower body mass index.[15, 17] Thus, members of the public should maintain a healthy body weight and lead a healthy lifestyle to reduce the risk of developing NCDs. While every bit of physical activity helps get fit, more is better than less. A combination of different types and intensities of physical activity is preferable. In fact, it is not difficult to maintain physically active while staying at home. We can incorporate several bouts of mini-workouts (10, 15 or 20 minutes) throughout the day to meet the WHO recommendations on physical activity. In addition to being physically active, members of the public are urged to eat a balanced diet, avoid alcohol consumption along with no smoking. To know more about health living, please visit the Change for Health website at www.change4health.gov.hk/.

To keep the COVID-19 at bay, we all have a responsibility and can contribute by staying healthy, observing good personal and environmental hygiene, going out less and reducing social activities, as well as maintaining an appropriate social distance with other people as far as possible. People living with pre-existing chronic diseases should be extra cautious, continue to take medication as prescribed and follow medical advice. For more information about the COVID-19 situation and relevant health advice, please visit the thematic website at www.coronavirus.gov.hk/eng/index.html.

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Move for Health

To encourage members of the public to do more physical activities, the Department of health produced a number of demonstration videos for different settings, including the Household Fitness Dance. The videos can be viewed at www.change4health.gov.hk/en/resources/av_gallery/.

The Lazy Lion has made a commitment to stay fit by doing home-based stretching exercises and household chores, while staying at home and observing social distancing to reduce the spread of the COVID-19.

Let's join Lazy Lion. Together, we can fight the virus and keep healthy!

家居健體操
Household Fitness Dance

日常伸展操
Stretching Dance

活力操
Lively Dance

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.*

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