

AT A GLANCE

# GUIDELINES ON PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOUR



World Health  
Organization



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**PHYSICAL ACTIVITY AND  
SEDENTARY BEHAVIOUR**



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Organization**

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<https://apps.who.int/iris/bitstream/handle/10665/336657/9789240015111-eng.pdf>



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# KEY MESSAGES

## 1 **Physical activity is good for hearts, bodies and minds.**

Regular physical activity can prevent and help manage heart disease, type-2 diabetes, and cancer which cause nearly three quarters of deaths worldwide. Physical activity can also reduce symptoms of depression and anxiety, and enhance thinking, learning, and overall well-being.

## 2 **Any amount of physical activity is better than none, and more is better.**

For health and wellbeing, WHO recommends at least 150 to 300 minutes of moderate aerobic activity per week (or the equivalent vigorous activity) for all adults, and an average of 60 minutes of moderate aerobic physical activity per day for children and adolescents.

## 3 **All physical activity counts.**

Physical activity can be done as part of work, sport and leisure or transport (walking, wheeling and cycling), as well as every day and household tasks.

## 4 **Muscle strengthening benefits everyone.**

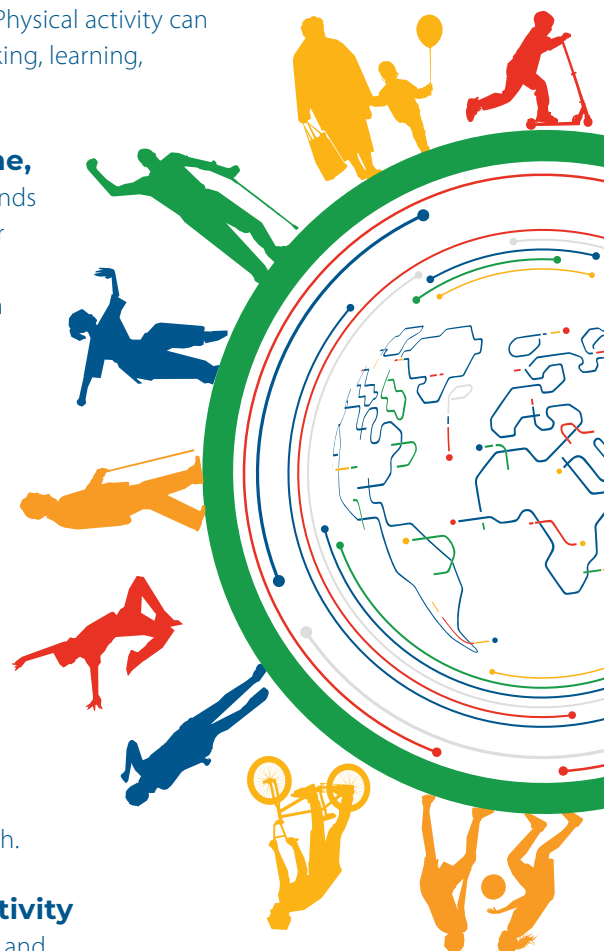
Older adults (aged 65 years and older) should add physical activities which emphasize balance and coordination, as well as muscle strengthening, to help prevent falls and improve health.

## 5 **Too much sedentary behaviour can be unhealthy.**

It can increase the risk of heart disease, cancer, and type-2 diabetes. Limiting sedentary time and being physically active is good for health.

## 6 **Everyone can benefit from increasing physical activity and reducing sedentary behaviour,**

including pregnant and postpartum women and people living with chronic conditions or disability.



Four to five million deaths per year could be averted if the global population was more physically active. These global guidelines enable countries to develop evidence-based national health policies and support the implementation of the WHO Global action plan on physical activity 2018-2030.

Action and investment in policies to promote physical activity and reduce sedentary behaviour can help to achieve the 2030 Sustainable Development Goals (SDGs), particularly Good Health and Wellbeing ([SDG3](#)), Sustainable Cities and Communities ([SDG11](#)), Climate Action ([SDG13](#)), as well as Quality Education ([SDG4](#)) among others.

## EVERY MOVE COUNTS

*Moderate-intensity activity will raise your heart rate, and make you breathe faster. Vigorous-intensity activity makes you breathe hard and fast. There are many ways you can strengthen your muscles, whether you're at home or in a gym.*

## INTRODUCTION

Regular physical activity is a key protective factor for the prevention and management of noncommunicable diseases (NCDs) such as cardiovascular disease, type-2 diabetes, and a number of cancers. Physical activity also benefits mental health, including prevention of cognitive decline and symptoms of depression and anxiety; and can contribute to the maintenance of healthy weight and general well-being. Global estimates indicate that 27.5% of adults (1) and 81% of adolescents (2) do not meet the 2010 WHO recommendations for physical activity (3) with almost no improvements seen during the past decade. There are also notable inequalities: data show that in most countries girls and women are less active than boys and men, and that there are significant differences in levels of physical activity between higher and lower economic groups, and between countries and regions.

## SCOPE

The *WHO Guidelines on physical activity and sedentary behaviour* provide evidence-based public health recommendations for children, adolescents, adults and older adults on the amount of physical activity (frequency, intensity and duration) required to offer significant health benefits and mitigate health risks. For the first time, recommendations are provided on the associations between sedentary behaviour and health outcomes, as well as for subpopulations, such as pregnant and postpartum women, and people living with chronic conditions or disability.

## TARGET AUDIENCE

The guidelines are intended for policy-makers in high-, middle-, and low-income countries in ministries of health, education, youth, sport and/or social or family welfare; government officials responsible for developing national, sub regional or municipal plans to increase physical activity and reduce sedentary behaviour in population groups through guidance documents; people working in nongovernmental organizations, the education sector, private sector, research; and health-care providers.

## DEVELOPMENT PROCESS

The guidelines were prepared in accordance with the *WHO handbook for guideline development* (4). In 2019 a Guideline Development Group (GDG) was formed comprising technical experts and relevant stakeholders from all six WHO regions. The group met in July 2019 to formulate the key questions, review the evidence-bases, and agree the methods for updates of literature, and, where needed, for additional new reviews. In February 2020, the GDG met again to review the evidence for the critical and important outcomes, consider the benefits and harms, values, preferences, feasibility and acceptability, and the implications for equity and resources. The recommendations were developed through consensus and posted online for public consultation. The final updated recommendations are summarized below. The GRADE<sup>1</sup> tables and evidence profiles are available as a [Web annex](#). Practical tools to support adoption, dissemination, communication campaigns and implementation of the guidelines will support governments and stakeholders work together to increase physical activity and reduce sedentary behaviours across the life course.

## RECOMMENDATIONS

The public health recommendations presented in the *WHO Guidelines on physical activity and sedentary behaviour* are for all populations and age groups ranging from 5 years to 65 years and older, irrespective of gender, cultural background or socioeconomic status, and are relevant for people of all abilities. Those with chronic medical conditions and/or disability and pregnant and postpartum women should try to meet the recommendations where possible and as able.

<sup>1</sup> GRADE: Grading of Recommendations Assessment Development and Evaluation

[Available online at https://apps.who.int/iris/bitstream/handle/10665/336657/9789240015111-eng.pdf](https://apps.who.int/iris/bitstream/handle/10665/336657/9789240015111-eng.pdf)



# CHILDREN AND ADOLESCENTS

(aged 5–17 years)



In children and adolescents, physical activity confers benefits for the following health outcomes: improved physical fitness (cardiorespiratory and muscular fitness), cardiometabolic health (blood pressure, dyslipidaemia, glucose, and insulin resistance), bone health, cognitive outcomes (academic performance, executive function), mental health (reduced symptoms of depression); and reduced adiposity.

At least



**60**  
minutes a day



**moderate- to vigorous- intensity, mostly physical activity**, across the week; most of this physical activity should be aerobic.



It is recommended that:

- > **Children and adolescents should do at least an average of 60 minutes per day of moderate- to vigorous- intensity, mostly aerobic, physical activity, across the week.**

*Strong recommendation, moderate certainty evidence*

On at least



**3**  
days a week



**vigorous-intensity aerobic activities**, as well as those that **strengthen muscle and bone** should be incorporated.



- > **Vigorous-intensity aerobic activities, as well as those that strengthen muscle and bone, should be incorporated at least 3 days a week.**

*Strong recommendation, moderate certainty evidence*

## GOOD PRACTICE STATEMENTS

- Doing some physical activity is better than doing none.
- If children and adolescents are not meeting the recommendations, doing some physical activity will benefit their health.
- Children and adolescents should start by doing small amounts of physical activity, and gradually increase the frequency, intensity and duration over time.
- It is important to provide all children and adolescents with safe and equitable opportunities, and encouragement, to participate in physical activities that are enjoyable, offer variety, and are appropriate for their age and ability.



In children and adolescents, higher amounts of sedentary behaviour are associated with the following poor health outcomes: increased adiposity; poorer cardiometabolic health, fitness, behavioural conduct/pro-social behaviour; and reduced sleep duration.

It is recommended that:

- > **Children and adolescents should limit the amount of time spent being sedentary, particularly the amount of recreational screen time.**

*Strong recommendation, low certainty evidence*

**LIMIT**

**the amount of time spent being sedentary**, particularly recreational screen time.



# ADULTS

(aged 18–64 years)



In adults, physical activity confers benefits for the following health outcomes: improved all-cause mortality, cardiovascular disease mortality, incident hypertension, incident site-specific cancers,<sup>2</sup> incident type-2 diabetes, mental health (reduced symptoms of anxiety and depression); cognitive health, and sleep; measures of adiposity may also improve.

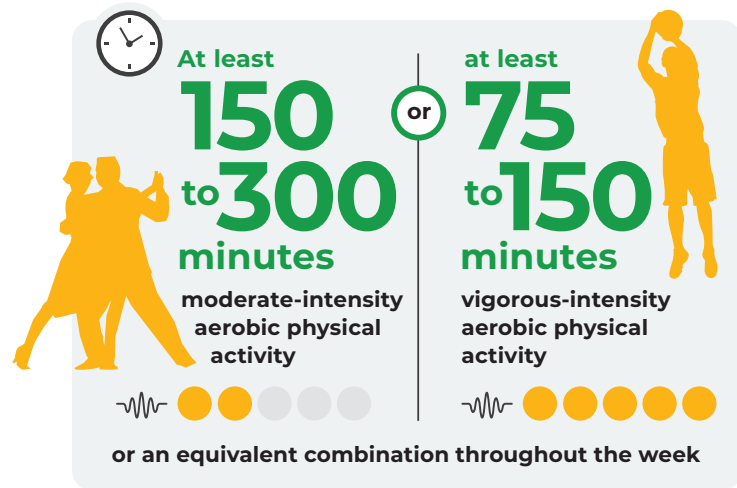
It is recommended that:

› **All adults should undertake regular physical activity.**

*Strong recommendation, moderate certainty evidence*

› **Adults 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 substantial health benefits.**

*Strong recommendation, moderate certainty evidence*



For additional health benefits:

On at least



**2**  
days  
a week

muscle-strengthening activities at moderate or greater intensity that involve all major muscle groups.



› **Adults should also do muscle-strengthening activities at moderate or greater intensity that involve all major muscle groups on 2 or more days a week, as these provide additional health benefits.**

*Strong recommendation, moderate certainty evidence*



<sup>2</sup> Site-specific cancers of: bladder, breast, colon, endometrial, oesophageal adenocarcinoma, gastric, and renal.





For additional health benefits:

more than

**300**  
minutes

moderate-intensity  
aerobic physical  
activity



or

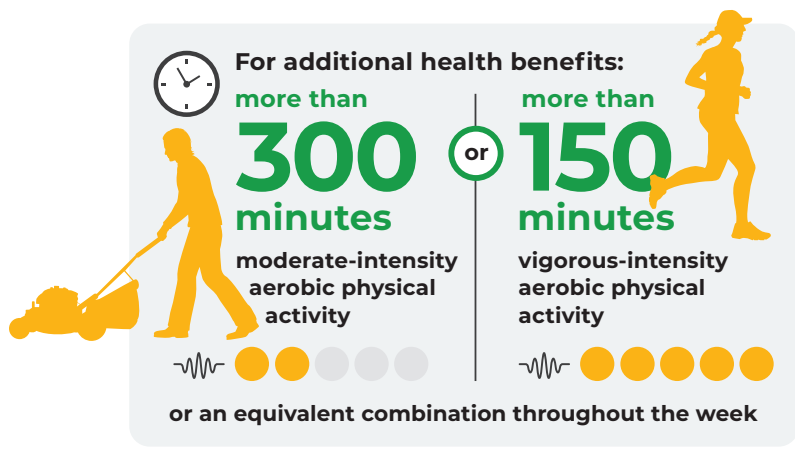
more than

**150**  
minutes

vigorous-intensity  
aerobic physical  
activity



or an equivalent combination throughout the week



> Adults may increase moderate-intensity aerobic physical activity to more than 300 minutes; or do more than 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.

*Conditional recommendation, moderate certainty evidence*

GOOD PRACTICE STATEMENTS



- Doing some physical activity is better than doing none.
- If adults are not meeting these recommendations, doing some physical activity will benefit their health.
- Adults should start by doing small amounts of physical activity, and gradually increase the frequency, intensity and duration over time.

In adults, higher amounts of sedentary behaviour are associated with the following poor health outcomes: all-cause mortality, cardiovascular disease mortality and cancer mortality and incidence of cardiovascular disease, cancer and type-2 diabetes.

It is recommended that:

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

*Strong recommendation, moderate certainty evidence*

> **To help reduce the detrimental effects of high levels of sedentary behaviour on health, adults should aim to do more than the recommended levels of moderate- to vigorous-intensity physical activity.**

*Strong recommendation, moderate certainty evidence*

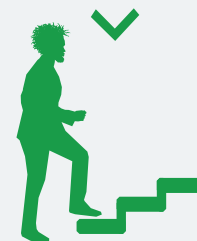
**LIMIT**

the amount of time spent being sedentary



**REPLACE**

with more physical activity of any intensity (including light intensity).



# OLDER ADULTS

(aged 65 years and older)



In older adults, physical activity confers benefits for the following health outcomes: improved all-cause mortality, cardiovascular disease mortality, incident hypertension, incident site-specific cancers, incident type-2 diabetes, mental health (reduced symptoms of anxiety and depression), cognitive health, and sleep; measures of adiposity may also improve. In older adults, physical activity helps prevent falls and falls-related injuries and declines in bone health and functional ability.

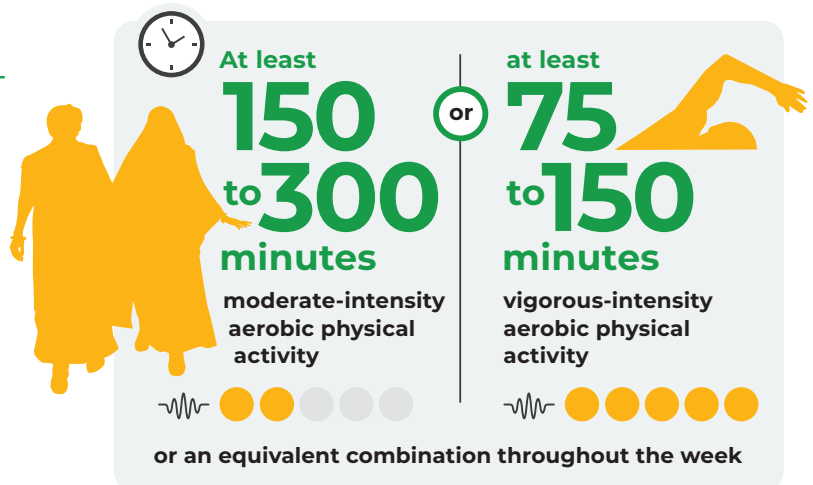
It is recommended that:

➤ **All older adults should undertake regular physical activity.**

*Strong recommendation, moderate certainty evidence*

➤ **Older adults 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 substantial health benefits.**

*Strong recommendation, moderate certainty evidence*



**For additional health benefits:**



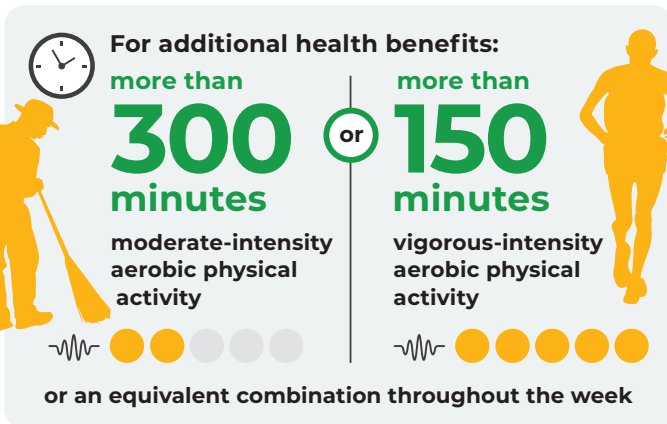
➤ **Older adults should also do muscle-strengthening activities at moderate or greater intensity that involve all major muscle groups on 2 or more days a week, as these provide additional health benefits.**

*Strong recommendation, moderate certainty evidence*



➤ **As part of their weekly physical activity, older adults should do varied multicomponent physical activity that emphasizes functional balance and strength training at moderate or greater intensity, on 3 or more days a week, to enhance functional capacity and to prevent falls.**

*Strong recommendation, moderate certainty evidence*



> Older adults may increase moderate-intensity aerobic physical activity to more than 300 minutes; or do more than 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.

*Conditional recommendation, moderate certainty evidence*

**GOOD PRACTICE STATEMENTS**



- Doing some physical activity is better than doing none.
- If older adults are not meeting the recommendations, doing some physical activity will bring benefits to health.
- Older adults should start by doing small amounts of physical activity, and gradually increase the frequency, intensity and duration over time.
- Older adults should be as physically active as their functional ability allows, and adjust their level of effort for physical activity relative to their level of fitness.

In older adults, higher amounts of sedentary behaviour are associated with the following poor health outcomes: all-cause mortality, cardiovascular disease mortality and cancer mortality, and incidence of cardiovascular disease, cancer and incidence of type-2 diabetes.

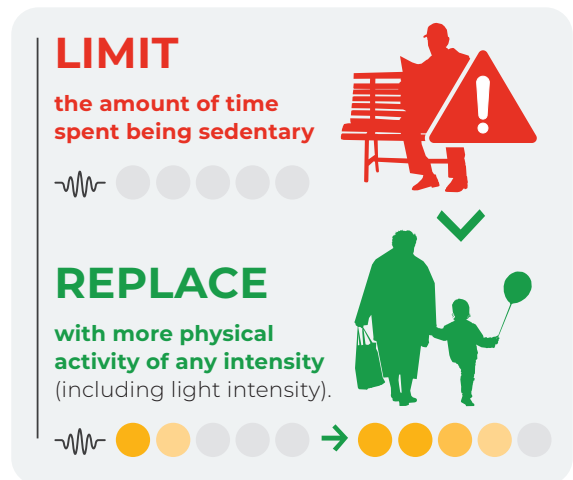
It is recommended that:

> Older adults should limit the amount of time spent being sedentary. Replacing sedentary time with physical activity of any intensity (including light intensity) provides health benefits.

*Strong recommendation, moderate certainty evidence*

> To help reduce the detrimental effects of high levels of sedentary behaviour on health, older adults should aim to do more than the recommended levels of moderate- to vigorous-intensity physical activity.

*Strong recommendation, moderate certainty evidence*



# PREGNANT AND POSTPARTUM WOMEN



In pregnant and postpartum women, physical activity during pregnancy and postpartum confers benefits on the following maternal and fetal health benefits: decreased risk of pre-eclampsia, gestational hypertension, gestational diabetes, excessive gestational weight gain, delivery complications and postpartum depression, and fewer newborn complications, no adverse effects on birthweight; and no increase in risk of stillbirth.

It is recommended that all pregnant and postpartum women without contraindication should:

## › Undertake regular physical activity throughout pregnancy and postpartum.

*Strong recommendation, moderate certainty evidence*

At least  
**150**  
minutes  
a week  
moderate-intensity  
aerobic physical activity

## › Do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week for substantial health benefits.

*Strong recommendation, moderate certainty evidence*

## › Incorporate a variety of aerobic and muscle-strengthening activities. Adding gentle stretching may also be beneficial.

*Strong recommendation, moderate certainty evidence*

In addition:

## › Women who, before pregnancy, habitually engaged in vigorous-intensity aerobic activity, or who were physically active, can continue these activities during pregnancy and the postpartum period.

*Strong recommendation, moderate certainty evidence*



GOOD PRACTICE STATEMENTS



- Doing some physical activity is better than doing none.
- If pregnant and postpartum women are not meeting the recommendations, doing some physical activity will benefit their health.
- Pregnant and postpartum women should start by doing small amounts of physical activity, and gradually increase frequency, intensity and duration over time.
- Pelvic floor muscle training may be performed on a daily basis to reduce the risk of urinary incontinence.

Additional safety considerations for pregnant women when undertaking physical activity are:

- Avoid physical activity during excessive heat, especially with high humidity.
- Stay hydrated by drinking water before, during, and after physical activity.
- Avoid participating in activities which involve physical contact; pose a high risk of falling; or might limit oxygenation (such as activities at high altitude, when not normally living at high altitude).
- Avoid activities in supine position after the first trimester of pregnancy.
- When considering athletic competition, or exercising significantly above the recommended guidelines pregnant women should seek supervision from a specialist health-care provider.
- Pregnant women should be informed by their health-care provider of the danger signs alerting them as to when to stop; or to limit physical activity and consult a qualified health-care provider immediately should they occur.
- Return to physical activity gradually after delivery, and in consultation with a health-care provider, in the case of delivery by Caesarean section.

In pregnant and postpartum women, as in all adults, higher amounts of sedentary behaviour are associated with the following poor health outcomes: all-cause mortality, cardiovascular disease mortality and cancer mortality and incidence of cardiovascular disease, cancer and incidence of type-2 diabetes.

**LIMIT**

the amount of time spent being sedentary



**REPLACE**

with physical activity of any intensity (including light intensity).



It is recommended that:

- › Pregnant and postpartum women should limit the amount of time spent being sedentary. Replacing sedentary time with physical activity of any intensity (including light intensity) provides health benefits.

*Strong recommendation, low certainty evidence*

Doing some physical activity is better than doing none.



# ADULTS AND OLDER ADULTS WITH CHRONIC CONDITIONS (aged 18 years and older)



Physical activity can confer health benefits for adults and older adults living with the following chronic conditions: **for cancer survivors** – physical activity improves all-cause mortality, cancer-specific mortality, and risk of cancer recurrence or second primary cancer; **for people living with hypertension** – physical activity improves cardiovascular disease mortality, disease progression, physical function, health-related quality of life; **for people living with type-2 diabetes** – physical activity reduces rates of mortality from cardiovascular disease and indicators disease progression; and **for people living with HIV** – physical activity can improve physical fitness and mental health (reduced symptoms of anxiety and depression), and does not adversely affect disease progression (CD4 count and viral load) or body composition.

It is recommended that:

› **All adults and older adults with the above chronic conditions should undertake regular physical activity.** *Strong recommendation, moderate certainty evidence*

At least **150 to 300 minutes** moderate-intensity aerobic physical activity

or

at least **75 to 150 minutes** vigorous-intensity aerobic physical activity

or an equivalent combination throughout the week

› **Adults and older adults with these chronic conditions 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 substantial health benefits.**

*Strong recommendation, moderate certainty evidence*

› **Adults and older adults with these chronic conditions should also do muscle-strengthening activities at moderate or greater intensity that involve all major muscle groups on 2 or more days a week, as these provide additional benefits.**

*Strong recommendation, moderate certainty evidence*

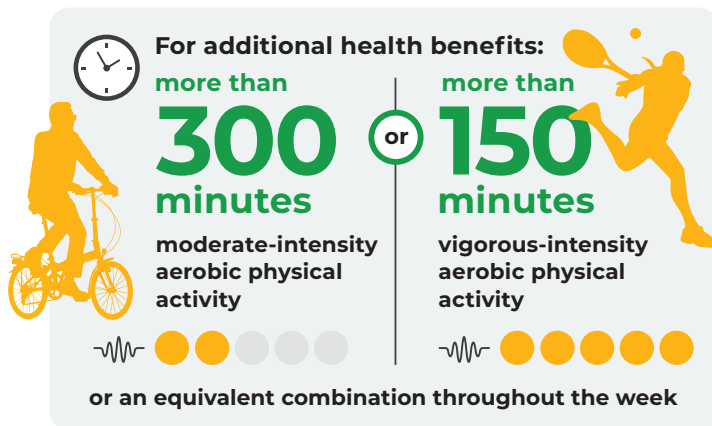
For additional health benefits:  
On at least **2 days a week** muscle-strengthening activities at moderate or greater intensity that involve all major muscle groups.

On at least **3 days a week** varied multicomponent physical activity that emphasizes functional balance and strength training at moderate or greater intensity.

› **As part of their weekly physical activity, older adults with these chronic conditions should do varied multicomponent physical activity that emphasizes functional balance and strength training at moderate or greater intensity on 3 or more days a week, to enhance functional capacity and prevent falls.**

*Strong recommendation, moderate certainty evidence*





› When not contraindicated, adults and older adults with these chronic conditions may increase moderate-intensity aerobic physical activity to more than 300 minutes; or do more than 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.

*Conditional recommendation, moderate certainty evidence*

**GOOD PRACTICE STATEMENTS**

- When not able to meet the above recommendations, adults with these chronic conditions should aim to engage in physical activity according to their abilities.
  - Adults with these chronic conditions should start by doing small amounts of physical activity and gradually increase the frequency, intensity and duration over time.
  - Adults with these chronic conditions may wish to consult with a physical activity specialist or health-care professional
- for advice on the types and amounts of activity appropriate for their individual needs, abilities, functional limitations/complications, medications, and overall treatment plan.
- Pre-exercise medical clearance is generally unnecessary for individuals without contraindications prior to beginning light- or moderate-intensity physical activity not exceeding the demands of brisk walking or everyday living.

In adults, including cancer survivors and people living with hypertension, type-2 diabetes and HIV, higher amounts of sedentary behaviour are associated with the following poor health outcomes: all-cause mortality, cardiovascular disease mortality and cancer mortality, and incidence of cardiovascular disease, cancer and incidence of type-2 diabetes.

For cancer survivors, and adults living with hypertension, type-2 diabetes and HIV, it is recommended that:

› **Adults and older 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.**

*Strong recommendation, low certainty evidence*

› **To help reduce the detrimental effects of high levels of sedentary behaviour on health, adults and older adults with chronic conditions should aim to do more than the recommended levels of moderate- to vigorous-intensity physical activity.**

*Strong recommendation, low certainty evidence*



# CHILDREN AND ADOLESCENTS (aged 5–17 years) LIVING WITH DISABILITY



Many of the health benefits of physical activity for children and adolescents, as set out in the section above, also relate to those children and adolescents living with disability. Additional benefits of physical activity to health outcomes for those living with disability include: improved cognition in individuals with diseases or disorders that impair cognitive function, including attention-deficit/hyperactivity disorder (ADHD); improvements in physical function may occur in children with intellectual disability.

**At least**



**60**  
**minutes** a day



**moderate-to-vigorous intensity, mostly physical activity**, across the week; most of this physical activity should be aerobic.



It is recommended that:

- › **Children and adolescents living with disability should do at least an average of 60 minutes per day of moderate-to-vigorous intensity, mostly aerobic, physical activity, across the week.**

*Strong recommendation, moderate certainty evidence*

**On at least**



**3**  
**days** a week



**vigorous-intensity aerobic activities**, as well as those that **strengthen muscle and bone** should be incorporated.



- › **Vigorous-intensity aerobic activities, as well as those that strengthen muscle and bone should be incorporated at least 3 days a week.**

*Strong recommendation, moderate certainty evidence*

**Doing some physical activity is better than doing none.**



GOOD PRACTICE  
STATEMENTS



- Doing some physical activity is better than doing none.
- If children and adolescents living with disability are not meeting these recommendations, doing some physical activity will bring benefits to health.
- Children and adolescents living with disability should start by doing small amounts of physical activity and gradually increase the frequency, intensity and duration over time.
- There are no major risks for children and adolescents living with disability engaging in physical activity when it is appropriate to an individual's current activity level, health status and physical function; and the health benefits accrued outweigh the risks.
- Children and adolescents living with disability may need to consult a health-care professional or other physical activity and disability specialist to help determine the type and amount of activity appropriate for them.

In children and adolescents, higher amounts of sedentary behaviour are associated with the following poor health outcomes: increased adiposity; poorer cardiometabolic health, fitness, and behavioural conduct/pro-social behaviour; and reduced sleep duration.

It is recommended that:

- › **Children and adolescents living with disability should limit the amount of time spent being sedentary, particularly the amount of recreational screen time.**

*Strong recommendation, low certainty evidence*

**LIMIT**

the amount of time spent being sedentary, particularly recreational screen time.



**Start by doing small amounts of physical activity.**



# ADULTS (aged 18 years and older) LIVING WITH DISABILITY

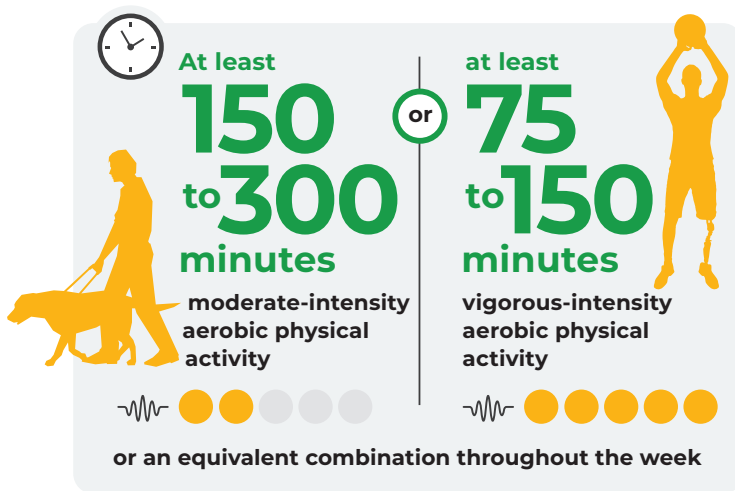


Many of the health benefits of physical activity for adults, as set out in the section above, also relate to adults living with disability. Additional benefits of physical activity to health outcomes for those living with disability include the following: **for adults with multiple sclerosis** – improved physical function, and physical, mental, and social domains of health-related quality of life; **for individuals with spinal cord injury** – improved walking function, muscular strength, and upper extremity function; and enhanced health-related quality of life; **for individuals with diseases or disorders that impair cognitive function** – improved physical function and cognition (in individuals with Parkinson’s disease and those with a history of stroke); beneficial effects on cognition; and may improve quality of life (in adults with schizophrenia); and may improve physical function (in adults with intellectual disability); and improves quality of life (in adults with major clinical depression).

It is recommended that:

- **All adults living with disability should undertake regular physical activity.**

*Strong recommendation, moderate certainty evidence*



- **Adults living with disability 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 substantial health benefits.**


*Strong recommendation, moderate certainty evidence*

- **Adults living with disability should also do muscle-strengthening activities at moderate or greater intensity that involve all major muscle groups on 2 or more days a week, as these provide additional health benefits.**

*Strong recommendation, moderate certainty evidence*



On at least



**3**  
days  
a week

varied multicomponent physical activity that emphasizes functional balance and strength training at moderate or greater intensity.





› As part of their weekly physical activity, older adults living with disability should do varied multicomponent physical activity that emphasizes functional balance and strength training at moderate or greater intensity on 3 or more days a week, to enhance functional capacity and prevent falls.

*Strong recommendation, moderate certainty evidence*

› Adults living with disability may increase moderate-intensity aerobic physical activity to more than 300 minutes; or do more than 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.

*Conditional recommendation, moderate certainty evidence*




For additional health benefits:



more than **300** minutes moderate-intensity aerobic physical activity

or

more than **150** minutes vigorous-intensity aerobic physical activity

or an equivalent combination throughout the week

GOOD PRACTICE STATEMENTS

- Doing some physical activity is better than doing none.
- If adults living with disability are not meeting these recommendations, doing some physical activity will bring benefits to health.
- Adults living with disability should start by doing small amounts of physical activity, and gradually increase the frequency, intensity and duration over time.
- There are no major risks to adults living with disability engaging in physical activity when it is appropriate to the individual's current activity level, health status and physical function; and when the health benefits accrued outweigh the risks.
- Adults living with disability may need to consult a health-care professional or other physical activity and disability specialist to help determine the type and amount of activity appropriate for them.

In adults, higher amounts of sedentary behaviour are associated with the following poor health outcomes: all-cause mortality, cardiovascular disease mortality and cancer mortality and incidence of cardiovascular disease, cancer and type-2 diabetes.

It is recommended that:



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

*Strong recommendation, low certainty evidence*



› To help reduce the detrimental effects of high levels of sedentary behaviour on health, adults living with disability should aim to do more than the recommended levels of moderate- to vigorous-intensity physical activity.

*Strong recommendation, low certainty evidence*

**LIMIT**  
the amount of time spent being sedentary

**REPLACE**  
with more physical activity of any intensity (including light intensity).

## RESEARCH GAPS

Despite the large quantity of supporting data relating physical activity and, increasingly, sedentary behaviours to health outcomes across the life-span, important evidence gaps remain. In particular, there is less evidence from low- and middle-income countries and economically disadvantaged or underserved communities, and a dearth of evidence from subpopulations including people living with disabilities. Additionally, greater investment is needed in research to build evidence on the precise shape of the dose-response curve between physical activity and/or sedentary behaviour and health outcomes; the health benefits of light-intensity physical activity; and the joint association between physical activity and sedentary behaviour and health outcomes across the life course.

## ADOPTION AND DISSEMINATION

These guidelines provide evidence-based recommendations on the health impacts of physical activity and sedentary behaviour that governments can adopt as part of their national policy frameworks. Their development by WHO provides a rapid and cost-effective option that can be adapted and used by regions, countries or subnational authorities.

Within the adoption process, consideration should be given to the need to contextualize the guidelines, by providing, for instance, examples of physical activities that are locally relevant, and the use of images that reflect local cultures, norms and values. A step-by-step framework for national guideline adoption is under development, following a series of regional workshops with key stakeholders. These supporting resources will be available through the WHO website following publication of the guidelines.

National physical activity guidelines are a core component of the governance structures for a comprehensive approach to increasing population levels of physical activity. National guidelines inform the development and priorities of national and subnational strategy planning and require communication of the correct information, to the appropriate groups of people, in a suitable way. Different stakeholders will benefit from different materials; to communicate the guidelines effectively to different audiences, consideration must be given to the content, format, and delivery channels for communication.





## FROM GUIDELINES TO ACTION

National guidelines, in isolation, do not lead to increases in population levels of physical activity. They should be seen as one element of a comprehensive policy framework and used to inform planning of programmes and policy responses to promote physical activity. It is critical that guidelines are disseminated to key audiences, and WHO recommends conducting sustained national communication campaigns that will lead to increased awareness and knowledge about the multiple benefits of regular physical activity (5) and reduction in sedentary behaviours. However, in order to influence sustained behaviour change, communication campaign activities must be supported by policies that create supportive environments and provision of opportunities for physical activity participation. When developing policies and practices to support behaviour change, it is important to consider the local context, in terms not only of the health system, but also the complex multisector institutions with an interest or role in physical activity promotion. The *Global action plan on physical activity 2018–2030* (6) set a target to reduce physical inactivity by 15% by 2030, and outlined 20 recommended policy actions and interventions. WHO is supporting all countries to implement the GAPP recommendations with “ACTIVE”, a technical package (7) of toolkits that provide guidance on how to promote physical activity across the life course and through multiple settings.

## IMPLICATIONS FOR SURVEILLANCE

The *WHO Global recommendations on physical activity for health* (3) have been used as benchmarks for population health monitoring and surveillance since 2010. The changes introduced to the recommendations in the *WHO Guidelines on physical activity and sedentary behaviour* will have some implications for surveillance systems and assessment instruments currently used to monitor national levels of physical activity. Existing instruments, such as the Global Physical Activity Questionnaire (GPAQ), and Global Student Health Survey (GSHS) will be reviewed, and reporting protocols updated, to inform any adjustments and recommendations on future reporting against the new guidelines.

The WHO NCD Country Capacity Survey (CCS), conducted every two years, is the main instrument used to monitor global progress on NCD policy implementation. The CCS includes specific questions on population surveillance systems on physical activity for each age group covered by the *WHO guidelines on physical activity and sedentary behaviour*, and since 2019 on the existence of national physical activity guidelines (8). Data collected through CCS from the 2021 and subsequent surveys will provide information on uptake of the guidelines.

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