



Physical activity

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Key facts

- Physical activity has significant health benefits for hearts, bodies and minds
- Physical activity contributes to preventing and managing noncommunicable diseases such as cardiovascular diseases, cancer and diabetes
- Physical activity reduces symptoms of depression and anxiety
- Physical activity enhances thinking, learning, and judgment skills
- Physical activity ensures healthy growth and development in young people
- Physical activity improves overall well-being
- Globally, 1 in 4 adults do not meet the global recommended levels of physical activity
- People who are insufficiently active have a 20% to 30% increased risk of death compared to people who are sufficiently active
- More than 80% of the world's adolescent population is insufficiently physically active

What is physical activity?

WHO defines physical activity as any bodily movement produced by skeletal muscles that requires energy expenditure. Physical activity refers to all movement including during leisure time, for transport to get to and from places, or as part of a person's work. Both moderate- and vigorous-intensity physical activity improve health.

Popular ways to be active include walking, cycling, wheeling, sports, active recreation and play, and can be done at any level of skill and for enjoyment by everybody.

Regular physical activity is proven to help prevent and manage noncommunicable diseases such as heart disease, stroke, diabetes and several cancers. It also helps prevent hypertension, maintain healthy body weight and can improve mental health, quality of life and well-being.

How much of physical activity is recommended?

WHO guidelines and recommendations provide details for different age groups and specific population groups on how much physical activity is needed for good health.

WHO recommends:

For children under 5 years of age

In a 24-hour day, infants (less than 1 year) should:

- be physically active several times a day in a variety of ways, particularly through interactive floor-based play; more is better. For those not yet mobile, this includes at least 30 minutes in prone position (tummy time) spread throughout the day while awake;
- not be restrained for more than 1 hour at a time (e.g., prams/strollers, high chairs, or strapped on a caregiver's back);
 - Screen time is not recommended.
- When sedentary, engaging in reading and storytelling with a caregiver is encouraged; and
- have 14-17h (0-3 months of age) or 12-16h (4-11 months of age) of good quality sleep, including naps.

In a 24-hour day, children 1-2 years of age should:

- spend at least 180 minutes in a variety of types of physical activities at any intensity, including moderate- to vigorous-intensity physical activity, spread throughout the day; more is better;
- not be restrained for more than 1 hour at a time (e.g., prams/strollers, high chairs, or strapped on a caregiver's back) or sit for extended periods of time.
 - For 1 year olds, sedentary screen time (such as watching TV or videos, playing computer games) is not recommended.
 - For those aged 2 years, sedentary screen time should be no more than 1 hour; less is better.
- When sedentary, engaging in reading and storytelling with a caregiver is encouraged; and
- have 11-14h of good quality sleep, including naps, with regular sleep and wake-up times.

In a 24-hour day, children 3-4 years of age should:

- spend at least 180 minutes in a variety of types of physical activities at any intensity, of which at least 60 minutes is moderate- to vigorous-intensity physical activity, spread throughout the day; more is

- better;
- not be restrained for more than 1 hour at a time (e.g., prams/strollers) or sit for extended periods of time.
 - Sedentary screen time should be no more than 1 hour; less is better.
 - When sedentary, engaging in reading and storytelling with a caregiver is); encourage; and
 - have 10-13h of good quality sleep, which may include a nap, with regular sleep and wake-up times.

For more information [World Health Organization. Guidelines on physical activity, sedentary behaviour and sleep for children under 5 years of age.](#)

Children and adolescents aged 5–17 years

- should do at least an average of 60 minutes per day of moderate-to-vigorous intensity, mostly aerobic, physical activity, across the week.
- should incorporate vigorous-intensity aerobic activities, as well as those that strengthen muscle and bone, at least 3 days a week.
- should limit the amount of time spent being sedentary, particularly the amount of recreational screen time.

Adults aged 18–64 years

- 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
- 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.
- 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.
- should limit the amount of time spent being sedentary. Replacing sedentary time with physical activity of any intensity (including light intensity) provides health benefits, and
- to help reduce the detrimental effects of high levels of sedentary behaviour on health, all adults and older adults should aim to do more than the recommended levels of moderate- to vigorous-intensity physical activity

Adults aged 65 years and above

- Same as for adults; and
- 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.

Pregnant and postpartum women

All pregnant and postpartum women without contraindication should:

- do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week
- incorporate a variety of aerobic and muscle-strengthening activities
- should limit the amount of time spent being sedentary. Replacing sedentary time with physical activity of any intensity (including light intensity) provides health benefits.

People living with chronic conditions (hypertension, type 2 diabetes, HIV and cancer survivors)

- 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
- 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.
- 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.
- 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.
- should limit the amount of time spent being sedentary. Replacing sedentary time with physical activity of any intensity (including light intensity) provides health benefits, and
- to help reduce the detrimental effects of high levels of sedentary behaviour on health, all adults and older adults should aim to do more than the recommended levels of moderate- to vigorous-intensity physical activity.

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.
- should incorporate vigorous-intensity aerobic activities, as well as those that strengthen muscle and bone, at least 3 days a week.
- should limit the amount of time spent being sedentary, particularly the amount of recreational screen time.

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
- 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.
- 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.

- 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.
- should limit the amount of time spent being sedentary. Replacing sedentary time with physical activity of any intensity (including light intensity) provides health benefits, and
- to help reduce the detrimental effects of high levels of sedentary behaviour on health, all adults and older adults should aim to do more than the recommended levels of moderate- to vigorous-intensity physical activity.
- It is possible to avoid sedentary behaviour and be physically active while sitting or lying. E.g. Upper body led activities, inclusive and/or wheelchair-specific sport and activities.

For more information [World Health Organization. Guidelines on physical activity and sedentary behaviour. Geneva: World Health Organization; 2020.](#)

Benefits and risks of physical activity and sedentary behavior

Regular physical activity, such as walking, cycling, wheeling, doing sports or active recreation, provides significant benefits for health. Some physical activity is better than doing none. By becoming more active throughout the day in relatively simple ways, people can easily achieve the recommended activity levels.

Physical inactivity is one of the leading risk factors for noncommunicable diseases mortality. People who are insufficiently active have a 20% to 30% increased risk of death compared to people who are sufficiently active.

Regular physical activity can:

- improve muscular and cardiorespiratory fitness;
- improve bone and functional health;
- reduce the risk of hypertension, coronary heart disease, stroke, diabetes, various types of cancer (including breast cancer and colon cancer), and depression;
- reduce the risk of falls as well as hip or vertebral fractures; and
- help maintain a healthy body weight.

In children and adolescents, physical activity improves:

- 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)
- reduced adiposity

In adults and older adults, higher levels of physical activity improves:

- risk of all-cause mortality
- risk of cardiovascular disease mortality
- incident hypertension
- incident site-specific cancers (bladder, breast, colon, endometrial, oesophageal adenocarcinoma, gastric and renal cancers)
- incident type-2 diabetes
- prevents of falls
- mental health (reduced symptoms of anxiety and depression)
- cognitive health
- sleep
- measures of adiposity may also improve

For pregnant and post-partum women

Physical activity confers the following maternal and fetal health benefits: a decreased risk of:

- pre-eclampsia,
- gestational hypertension,
- gestational diabetes (for example 30% reduction in risk)
- excessive gestational weight gain,
- delivery complications
- postpartum depression
- newborn complications,
- and physical activity has no adverse effects on birthweight or increased risk of stillbirth.

Health risks of sedentary behaviour

Lives are becoming increasingly sedentary, through the use of motorized transport and the increased use of screens for work, education and recreation. Evidence shows higher amounts of sedentary behaviour are associated with the following poor health outcomes:

In children and adolescents:

- increased adiposity (weight gain)
- poorer cardiometabolic health, fitness, behavioural conduct/pro-social behaviour
- reduced sleep duration

In adults:

- all-cause mortality, cardiovascular disease mortality and cancer mortality
- incidence of cardiovascular disease, cancer and type-2 diabetes.

Levels of physical activity globally

- More than a quarter of the world's adult population (1.4 billion adults) are insufficiently active
- Worldwide, around 1 in 3 women and 1 in 4 men do not do enough physical activity to stay healthy.
- Levels of inactivity are twice as high in high-income countries compared to low-income countries,
- There has been no improvement in global levels of physical activity since 2001
- Insufficient activity increased by 5% (from 31.6% to 36.8%) in high-income countries between 2001 and 2016.

Increased levels of physical inactivity have negative impacts on health systems, the environment, economic development, community well-being and quality of life.

Globally, 28% of adults aged 18 and over were not active enough in 2016 (men 23% and women 32%). This means they do not meet the global recommendations of at least 150 minutes of moderate-intensity, or 75 minutes vigorous-intensity physical activity per week.

In high-income countries, 26% of men and 35% of women were insufficiently physically active, as compared to 12% of men and 24% of women in low-income countries. Low or decreasing physical activity levels often correspond with a high or rising gross national product.

The drop in physical activity is partly due to inaction during leisure time and sedentary behaviour on the job and at home. Likewise, an increase in the use of "passive" modes of transportation also contributes to insufficient physical activity.

Globally, 81% of adolescents aged 11-17 years were insufficiently physically active in 2016. Adolescent girls were less active than adolescent boys, with 85% vs. 78% not meeting WHO recommendations of at least 60 minutes of moderate to vigorous intensity physical activity per day.

How to increase physical activity?

Countries and communities must take action to provide everyone with more opportunities to be active, in order to increase physical activity. This requires a collective effort, both national and local, across different sectors and disciplines to implement policy and solutions appropriate to a country's cultural and social environment to promote, enable and encourage physical activity.

Policies to increase physical activity aim to ensure that:

- walking, cycling and other forms of active non-motorized forms of transport are accessible and safe for all;
- labour and workplace policies encourage active commuting and opportunities for being physically active during the work day;
- childcare, schools and higher education institutions provide supportive and safe spaces and facilities for all students to spend their free time actively;
- primary and secondary schools provide quality physical education that supports children to develop behaviour patterns that will keep them physically active throughout their lives;
- community-based and school-sport programmes provide appropriate opportunities for all ages and abilities;
- sports and recreation facilities provide opportunities for everyone to access and participate in a variety of different sports, dance, exercise and active recreation; and
- health care providers advise and support patients to be regularly active.

WHO response

In 2018 WHO launched a new Global Action Plan on Physical Activity 2018-2030 which outlines four policy actions areas and 20 specific policy recommendations and actions for Member States, international partners and WHO, to increase physical activity worldwide. The global action plan calls for countries, cities and communities to adopt a ‘whole-of-system’ response involving all sectors and stakeholders taking action at global, regional and local levels to provide the safe and supportive environments and more opportunities to help people increase their levels of physical activity.

In 2018, the World Health Assembly agreed on a global target to reduce physical inactivity by 15% by 2030 and align with the Sustainable Development Goals. The commitments made by world leaders to develop ambitious national SDG responses provides an opportunity to refocus and renew efforts at promoting physical activity.

The WHO toolkit ACTIVE launched in 2019 provides more specific technical guidance on how to start and implement the 20 policy recommendations outlined in the global action plan.

The global action plan and ACTIVE propose policy options that can be adapted and tailored to local culture and contexts to help increase levels of physical activity globally, these include:

- the development and implementation of national guidelines for physical activity for all age groups;
- establishing national coordinating mechanisms involving all relevant government departments and key non-government stakeholders to develop and implement coherent and sustainable policy and actions plans;
- implementing community wide communication campaigns to raise awareness and knowledge of the multiple health, economic and social benefits of being physically active;

- invest in new technologies, innovation and research to develop cost effective approaches to increasing physical activity, particularly in low resource contexts;
- ensure regular surveillance and monitoring of physical activity and policy implementation.

For more information - Global action plan on physical activity 2018–2030: more active people for a healthier world

To help countries and communities measure physical activity in adults, WHO has developed the Global Physical Activity Questionnaire (GPAQ). This questionnaire helps countries monitor insufficient physical activity as one of the main NCD risk factors. The GPAQ has been integrated into the WHO STEPwise approach, which is a surveillance system for the main NCD risk factors.

To assess physical activity among schoolchildren WHO has collaborated on a questionnaire module which has been integrated into the Global school-based student health survey (GSHS). The GSHS is a WHO/US CDC surveillance project designed to help countries measure and assess the behavioural risk factors and protective factors in 10 key areas among young people aged 13 to 17 years.

WHO is also working with international experts on the development of methods and instruments to assess physical activity in children under the age of five years of age and under 10 years of age. In addition, WHO is testing the use of digital and wearable technologies, such as pedometers and accelerometers, in national population surveillance of physical activity in adults. This work will be extended to include children and will inform the development of updated global guidance on the monitoring of physical activity and sedentary behaviours.

To support a 'whole of system' response, WHO is collaborating across multiple sectors to strengthen coordination, advocacy and alignment of policy and actions. WHO has established partnerships to help support Member States in their efforts to promote physical activity – these include working with the United Nations Educational, Scientific and Cultural Organization (UNESCO) to advance and align the implementation of GAPPA and the Kazan Action Plan on physical education, sports and physical activity. WHO is also working with many other UN agencies in the shared agenda to promote Sport for Development and Peace. Within the sports system WHO is collaborating with the International Olympic Committee and International Sports Federations, The International Federation of Football Associations, FIFA, and others to support and strengthen the promotion of health through sports and the sports for all agenda.