

MALDIVES GUIDELINES ON PHYSICAL ACTIVITY FOR HEALTH 2022



ACKNOWLEDGEMENT

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DEVELOPING THE MALDIVES PHYSICAL ACTIVITY GUIDELINES

Noncommunicable diseases (NCDs) account for 84% of the disease burden and is the leading cause of death in the Maldives of which 34% are attributed to cardiovascular diseases (CVDs)¹. Physical inactivity has been identified as a leading risk factor for global mortality posing major implications for the prevalence of NCDs and to the general health and wellbeing of the population worldwide.

Backed by a wealth of scientific evidence, global, regional and national mandates and development goals are progressively addressing the need to increase the amounts of physical activity and reduce the amount of time spent in sedentary behaviors among people of all ages and abilities in order to reduce NCDs and increase the quality of life.

THE MALDIVES' KEY COMMITMENTS:

- A 25% relative reduction in overall mortality from cardiovascular diseases, cancers, diabetes, or chronic respiratory diseases by 2030
- A 10% relative reduction in prevalence of insufficient physical activity by 2030
- Develop national physical activity guidelines for all age groups in various settings

Source: Multi-sectoral Action Plan for the Prevention and Control of Noncommunicable Diseases In Maldives

Development of the Maldives Guidelines on Physical Activity for Health presents a benchmark for the achievement of physical activity for optimal health gains across various population groups for Maldivians. This report is mainly intended for use by policy makers and professionals from a wide range of organisations who partake in formulating and/or implementing policies, programmes and activities that promote physical activity, exercise, sport, recreation, active transportation and urban planning to achieve and boost health benefits.

KEY GUIDELINES

CHILDREN 0-4 YEARS

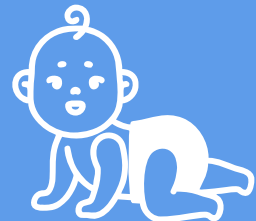
PHYSICAL ACTIVITY

A. INFANTS (below 1 year)

1. Should be physically active several times a day in a variety of ways.
 1. Interactive floor-based play, including crawling is particularly important every day.
 2. Infants not yet mobile, should spend at least 30 minutes in the prone position (tummy time), spread throughout the day while awake which includes reaching, grasping, pushing, pulling and rolling spread throughout the day while awake.
2. More physical activity is better.



30 MINUTES
IN PRONE POSITION



CRAWLING
IS IMPORTANT EVERYDAY

B. CHILDREN 1-2 YEARS

1. Should spend at least 180 minutes doing physical activities of any intensity, including moderate- to vigorous-intensity physical activity (energetic play) spread throughout the day.
2. More physical activity is better.



180 MINUTES
PHYSICAL ACTIVITY

C. CHILDREN 3-4 YEARS

1. Should spend at least 180 minutes doing physical activities of any intensity of which at least 60 minutes is moderate- to vigorous-intensity physical activity (energetic play) spread throughout the day.
2. More physical activity is better.



180 MINUTES
PHYSICAL ACTIVITIES

60 MINUTES
MODERATE INTENSITY

SEIDENTARY BEHAVIORS

A. INFANTS (below 1 year)

1. Should not be restrained more than 1 hour at a time (e.g., in a high chair, stroller, baby carrier, baby bouncers or walking aids).
2. Screen time is not recommended at all.
3. When sedentary, caregivers are encouraged to engage with infants in interactive activities such as reading, storytelling and singing.



SHOULD NOT BE
RESTRAINED FOR MORE
THAN 1 HOUR AT A TIME

B. CHILDREN 1-2 YEARS

1. Should not be restrained more than 1 hour at a time (e.g., in a high chair, stroller, baby carrier or baby bouncer) or sit for prolonged periods.
2. For children 1 year of age, sedentary screen time is not recommended at all (e.g., watching TV or videos, playing video or computer games).
3. For children 2 years of age, sedentary screen time should be no more than 1 hour per day, and less is better.
4. When sedentary, caregivers are encouraged to engage with children in interactive activities such as reading, storytelling and block building.



SCREEN TIME
NOT RECOMMENDED



**INTERACTIVE
ACTIVITIES**
LIKE STORYTELLING
AND BLOCK BUILDING

C. CHILDREN 3-4 YEARS

1. Should not be restrained more than 1 hour at a time (e.g., stroller) or sit for prolonged periods.
2. Sedentary screen time should be no more than 1 hour per day, and less is better (e.g., watching TV or videos, playing video or computer games).
3. When sedentary, caregivers are encouraged to engage with children in interactive activities such as reading, storytelling and block building.



SCREEN TIME
NO MORE THAN 1 HOUR PER DAY

SLEEP

A. INFANTS (below 1 year)

1. Should have 14-17 hours (0-3 months of age) or 12-16 hours (4-11 months of age) of good quality sleep, including naps.

B. CHILDREN 1-2 YEARS

1. Should have 11-14 hours of good quality sleep, including naps.
2. Should have regular sleep and wake-up times.

C. CHILDREN 3-4 YEARS

1. Should have 10-13 hours of good quality sleep, which may include a nap.
2. Should have regular sleep and wake-up times.

CHILDREN 5-17 YEARS

PHYSICAL ACTIVITY

1. Children aged 5-17 years should accumulate at least 60 minutes per day of moderate- to vigorous-intensity physical activity every day
2. Most of the physical activity should be aerobic.
3. Vigorous-intensity aerobic activities should be incorporated at least 3 times a week, including those that strengthen muscle and bone.



60 MINUTES PER DAY
MODERATE- TO VIGOROUS-INTENSITY

SEDENTARY BEHAVIORS

1. Prolonged periods of sitting are damaging to health and should be broken up as much as possible.
2. Sedentary recreational screen time should be limited to no more than 2 hours per day (this excludes screen time for educational purposes).
3. Less screen time is better.

SLEEP

1. Children aged 5-13 years should have 9-11 hours of good quality sleep (uninterrupted sleep) every night
2. Children 14-17 years should have 8-10 hours of good quality sleep (uninterrupted sleep) uninterrupted sleep every night
3. Children aged 5-17 years should have a consistent bed and wake-up times to assist in maintaining a healthy sleeping pattern.
4. Avoid screen time 1 hour before bedtime

ADULTS 18-64 YEARS

PHYSICAL ACTIVITY

1. Accumulate 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 aerobic physical activity every throughout the week.
2. For additional health benefits, adults may increase moderate-intensity aerobic physical activity more than 300 minutes; OR do more than 150 minutes of vigorous-intensity physical activity OR an equivalent combination of moderate and vigorous-intensity aerobic physical activity throughout the week
3. Muscle-strengthening activities at moderate or greater intensity involving all major muscle groups should be done on at least 2 days a week.
4. All adults should undertake regular physical activities

SEDENTARY BEHAVIORS

1. Limit the time spent being sedentary; replace with more physical activity of any intensity (including light intensity)
2. Higher amounts of sedentary behaviors are associated with the following poor health outcomes; all-cause mortality, cardiovascular diseases mortality and cancer mortality and incidence of cardiovascular diseases, cancer and incidence of type 2 diabetes.

OLDER ADULTS 65 YEARS AND ABOVE

PHYSICAL ACTIVITY

1. Older adults should engage in physical activity every day to gain health benefits. Doing some physical activity is better than doing none, and more is better than some.
2. Start off slowly and build up to the recommended levels of physical activity.
3. Accumulate 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- to vigorous-intensity aerobic physical activity throughout the week
4. For additional health benefits, adults may increase moderate-intensity aerobic physical activity more than 300 minutes; OR do more than 150 minutes of vigorous-intensity physical activity OR an equivalent combination of moderate- to vigorous-intensity aerobic physical activity throughout the week.
5. Muscle-strengthening activities at moderate or greater intensity involving all major muscle groups should be done on at least 2 days every week.
6. Older adults should do varied multi-component physical activities that emphasized functional balance and strength training at moderate or greater intensity, on 3 or more days a week to maintain and enhance functional capacity and to prevent falls
7. Older adults who cannot do the recommended levels of physical activity due to health conditions should aim to be as physically active as their abilities and conditions allow.

It is recommended that all older people consult an appropriate health care provider before starting or increasing physical activity levels

SEDENTARY BEHAVIORS

1. Limit the time spent being sedentary; replace with more physical activity of any intensity (including light intensity)
2. Higher amounts of sedentary behaviors are associated with the following poor health outcomes; all-cause mortality, cardiovascular diseases mortality and cancer mortality and incidence of cardiovascular diseases, cancer and incidence of type 2 diabetes.

PREGNANT AND POSTPARTUM WOMEN

PHYSICAL ACTIVITY

1. Pregnant and Postpartum women without contraindication should do at least 150 minutes of moderate-intensity aerobic activity every week.
2. Women who regularly engaged in vigorous-intensity physical activity and muscle-strengthening physical activities before pregnancy can continue these activities during pregnancy and the postpartum period.
3. Pregnant women should be under the care of a healthcare provider who can monitor the progress of the pregnancy and advice to ensure the types and intensities of physical activity they undertake are appropriate for their abilities and health during pregnancy and the postpartum period.
4. Women should avoid exercises that involve lying on their back after the first trimester of pregnancy as it can restrict the blood flow to the uterus and foetus.
5. Pregnant women should avoid participating in contact sports and activities that increase the risk of falls and abdominal trauma.
6. Pelvic flow muscle training may be performed daily to reduce the risk of urinary incontinence
7. Doing some physical activity is better than doing none, and more is better than some



PREGNANT WOMAN
SHOULD BE UNDER THE CARE
OF A HEALTHCARE PROVIDER



DAILY TRAINING
PELVIC FLOW MUSCLE TRAINING

SEDENTARY BEHAVIORS

1. Limit the time spent being sedentary; replace with more physical activity of any intensity (including light intensity)
2. Higher amounts of sedentary behaviors are associated with the following poor health outcomes; all-cause mortality, cardiovascular diseases mortality and cancer mortality and incidence of cardiovascular diseases, cancer and incidence of type 2 diabetes.

ADULTS AND OLDER ADULTS WITH CHRONIC CONDITIONS (AGE 18 YEARS AND OLDER)

PHYSICAL ACTIVITY

1. Adults and older adults with chronic conditions should engage in physical activity every day to gain health benefits. Doing some physical activity is better than doing none, and more is better than some.
2. Start slowly and build up to the recommended levels of physical activity.
3. Adults and older adults with chronic conditions should 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- to vigorous-intensity aerobic physical activity throughout the week
4. When not contraindicated, adults and older adults with chronic conditions may increase moderate-intensity aerobic physical activity more than 300 minutes; OR do more than 150 minutes of vigorous-intensity physical activity OR an equivalent combination of moderate- to and vigorous-intensity aerobic physical activity throughout the week.
5. For additional health benefits, muscle-strengthening activities at moderate or greater intensity involving all major muscle groups should be done on at least 2 days every week.
6. As part of their weekly physical activities older adults with chronic conditions should do varied multi-component physical activities that emphasized functional balance and strength training at moderate or greater intensity, on 3 or more days a week to maintain and enhance functional capacity and to prevent falls.
7. When not able to meet the above recommendations, adults with chronic conditions should aim to be as physically active as their abilities and conditions allow.

SEDENTARY BEHAVIORS

1. Limit the time spent being sedentary; replace with more physical activity of any intensity (including light intensity)
2. Higher amounts of sedentary behaviors are associated with the following poor health outcomes; all-cause mortality, cardiovascular diseases mortality and cancer mortality and incidence of cardiovascular diseases, cancer and incidence of type 2 diabetes.

CHILDREN AND ADOLESCENTS LIVING WITH DISABILITIES (AGED 5-17YEARS)

PHYSICAL ACTIVITY

1. Children and Adolescents living with disabilities should do at least an average of 60 minutes per day of moderate to vigorous intensity, mostly aerobic physical activities across the week
2. Vigorous-intensity aerobic activities, as well as those that strengthen muscle and bone should be incorporated at least 3 days a week.
3. If children and Adolescents living with disabilities are not meeting these recommendations, doing some physical activity will bring benefits to health.

SEDENTARY BEHAVIORS

1. Children and adolescents living with disabilities should limit the amount of time being sedentary, particularly the amount of recreational screen time.
2. Start by doing some amount of physical activity.

ADULTS LIVING WITH DISABILITIES (18 YEARS AND OLDER)

PHYSICAL ACTIVITY

1. Adults living with disabilities 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 aerobic physical activity throughout the week.
2. For additional health benefits, muscle-strengthening activities at moderate or greater intensity involving all major muscle groups should be done on at least 2 days every week.
3. As part of their weekly physical activities older adults living with disabilities should do varied multi-component physical activities that emphasized functional balance and strength training at moderate or greater intensity, on 3 or more days a week to maintain and enhance functional capacity and to prevent falls.
4. Adults living with a disability may increase moderate-intensity aerobic physical activity more than 300 minutes; , OR do more than 150 minutes of vigorous-intensity physical activity OR an equivalent combination of moderate- to and vigorous-intensity aerobic physical activity throughout the week.
5. When not able to meet the above recommendations, adults with chronic conditions should aim to be as physically active as their abilities and conditions allow.

SEDENTARY BEHAVIORS

1. Limit the time spent being sedentary; replace with more physical activity of any intensity (including light intensity)
2. Higher amounts of sedentary behaviors are associated with the following poor health outcomes; all-cause mortality, cardiovascular diseases mortality and cancer mortality and incidence of cardiovascular diseases, cancer and incidence of type 2 diabetes

PHYSICAL ACTIVITY FOR HEALTH

The health status of the Maldivian population has seen significant improvement, particularly in terms of longer life expectancies and successes in control of communicable diseases over the decades. Despite this, we now face a modern life epidemic; an epidemic of NCDs; an epidemic of physical inactivity. To balance the Maldives's success in adding a substantial number of years to life, we need to accelerate efforts to add life to these years. Action needs to be taken at all levels of the population to ensure that the number of years with high quality of life is increased.

Numerous scientific evidence shows that physical activity reduces the risk of a variety of preventable diseases including heart diseases, cancers, diabetes and conditions such as obesity, anxiety and depression. All in all, regular physical activity increases a person's chance of staying physically and mentally healthy, and of healthy independent living later in life.

A societal shift in attitude towards physical activity needs to be brought to ensure that all Maldivians enjoy healthy independent living at all stages of life. Being physically active needs to be made an easy, inexpensive, accessible option available for Maldivians of all ages and abilities. The best and most sustainable way is to integrate physical activity into daily life in order to be physically active for life.

Development of the Maldives Guidelines on Physical Activity for Health presents a benchmark for the achievement of physical activity for optimal health gains across various population groups for Maldivians. Prevention of NCDs at population level is a primary objective in the development of the physical activity guidelines.

SUMMARY OF HEALTH BENEFITS

An overwhelming amount of scientific evidence supports that regular physical activity provides a range of physical and mental health benefits among people of all age groups. Regular physical activity not only aids development and maintenance of physical and mental function, it also reduces the risk of disease and can play a key role in managing existing medical conditions. Some health benefits evidence across population levels that are backed by moderate or strong scientific evidence are seen below.

Children

- Cognitive development
- Better cardiovascular fitness
- Better muscle fitness
- Better bone health
- Healthy weight status
- Pro-social behavior
- Lower risk of depression

Adults

- Better cardiovascular fitness
- Better muscular fitness
- Lower risk of early death
- Lower risk of cardiovascular diseases and stroke
- Lower risk of hypertension
- Lower risk of Type 2 Diabetes
- Lower risk of some cancers
- Lower risk of metabolic syndrome
- Healthy weight status
- Reduced anxiety and depression
- Better sleep
- Better quality of life

Older adults

- Reduced cardiovascular risk
- Better cognitive function
- Better physical function
- Prevent falls
- Reduced frailty
- Better quality of life

Figure 1: Moderate to strong evidence for health benefits across population levels.

Source: World Health Organization, 2010. Global recommendations on physical activity for health. Geneva: World Health Organization.

SCOPE

The physical activity guidelines are intended to provide the recommended time that people of different age groups should spend being physically active; within a 24 hour period for children and within a 1 week period for adults. The recommendations in this document address five population groups:

- children 0-4 years
- children 5-17 years
- adults 18 -64 years
- older adults 65 years and above
- pregnant and postpartum women
- adults and older adults with chronic condition (18 years and above)
- children and adolescents living with disabilities (5-17 years)
- adults living with disabilities (18 years and above)

The guidelines do not address how these recommended durations of physical activity should be achieved; however, provide some tips and examples of activities that can assist in achieving it. For children 0-4 and 5-17 years, the guidelines also address recommendations on sleep, maximum recommended sedentary screen time and other sedentary behaviors. Recommendations on sedentary behaviors are also made for adults 18-64 years and for older adults 65 years and above.

Additional resources and tools are recommended to be developed to provide more guidance on how to achieve the recommended durations of physical activity for all population groups, with particular emphasis on addressing limiting sedentary time, special groups such as people with disabilities and chronic conditions, older adults, people with limited mobility, and pregnant and postpartum women. Additional resources are also recommended to be developed for educators, carers and parents on facilitating children and/or adults to achieve these recommendations.

The guidelines are a national adaptation of recommendations that draw upon the 2019 WHO Guidelines on Physical Activity, Sedentary Behavior and Sleep for Children under 5 years of age and World Health Organization. (2020). WHO guidelines on physical activity and sedentary behavior. World Health Organization. In addition, these guidelines were informed by country and regional guidelines available internationally. For a full list of key guiding documents, please refer to Appendix A.

Parents and caregivers should seek additional advice from a health professional to ensure the best course of action for children and adults with disabilities or chronic illnesses and should aim to achieve the guidelines where appropriate.

TARGET AUDIENCE

This guideline is mainly intended for use by policy makers and professionals from a wide range of organisations who partake in formulating and/or implementing policies, programmes and activities that promote physical activity, exercise, sport, recreation, active transportation, urban planning to achieve and boost health benefits. Include public

The key audiences for these guidelines include:

- National level policy-makers working in the development and implementation of public health policies. This includes policy-makers in ministries/agencies of health, education, youth, social welfare and development.
- Persons working in Non-Government Organizations, and other agencies working in health and related developmental services who can use the guidelines to inform their service.
- Professionals working in health, education & social services who can use the guidelines to inform the content of their advice on these topics.
- Agencies that provide pre-service and in-service training for professionals in health, education and social services such as primary health care workers, early childhood educators and teachers.
- General public

Users can adapt the guidelines in a variety of ways to tailor it to the needs and interests of people and contexts they work with.

INTRODUCTION TO THE GUIDELINES

This section presents the guidelines on the recommended levels of physical activity for 5 target population groups: children 0–4 years, children 5–17 years, adults 18–64 years, older adults 65 years and above, pregnant and postpartum women. In addition to physical activity recommendations, the guidelines for children 0–4 years and 5–17 years include recommendations on levels of sedentary behaviours and sleep, as well as recommendations on sedentary behaviours for the adult groups.

Each section includes:

- Introduction to the target population
- Key benefits of achieving the physical activity guidelines
- Guidelines
- Examples and tips to achieving the physical activity guidelines
- Recommendations for adults and older adults with chronic conditions, children and adolescents living with disabilities and adults living with disabilities

DEFINITIONS AND KEY CONCEPTS USED IN THE GUIDELINES

Health: Physical, mental and social wellbeing, not simply the absence of disease.

Wellbeing: the state of being comfortable, healthy and happy.

Physical activity: any movement produced by skeletal muscle that results in energy expenditure above resting level.

Physical inactivity: insufficient physical activity that is defined as a failure to meet the current recommended levels of physical activity.

Sedentary behavior: any waking behavior characterized by an energy expenditure less than 1.5 METs while in a sitting, reclining or laying posture. Some common sedentary behaviors include TV viewing, video game playing, computer use (collectively termed “screen time”), driving automobiles, and reading.

Good quality sleep

Sedentary screen time: time spent using electronic media such as television, computer, electronic games played while seated, tablets, and other electronic devices for entertainment and leisure. It usually subjects the user to being sitting down or lying down for an extended period.

Time spent restrained: time when children are not able to move around freely and play for an extended period.

Exercise: planned, structured, repetitive and purposeful physical activity.

Physical fitness: the ability related to how well you perform physical activity.

Type of physical activity (What type): the mode of participation in physical activity. The type of physical activity can take many forms such as aerobic, strength, flexibility and balance.

Duration (For how long): the length of time in which an activity or exercise is performed. Duration is generally expressed in minutes.

Frequency (How often): the number of times an exercise or activity is performed. Frequency is generally expressed in sessions, episodes, or bouts per week for adults or per day for children.

Intensity (How hard a person works to do the activity): intensity refers to the rate at which the activity is being performed or the magnitude of the effort required to perform an activity or exercise.

Metabolic equivalents (METs): it is a measurement of energy expenditure (EE) that is used to estimate the metabolic cost (oxygen consumption) of physical activity.

Light-intensity physical activity: physical activity that requires 1.5 to 3 METs in adults and 1.5 – 4 METs in children such as standing or slow walking. These are daily activities that take little effort but contribute to total daily energy expenditure.

Moderate-intensity physical activity: physical activity that requires 3 to 6 METs in adults and 4-7 METs in children.

In adults: a moderate-intensity physical activity causes a noticeable increase in breathing and heart rate. For example, adults should be able to talk but not sing while performing moderate-intensity brisk walking or a game of doubles badminton.

In Children: this can include brisk walking, cycling, playing games that include chasing, ball games, swimming, dancing etc that gets the child breathing harder and faster.

Vigorous-intensity physical activity: physical activity that requires more than 6 METs in adults and more than 7 METs in children.

In adults: a vigorous-intensity physical activity causes a significant increase in breathing and heart rate. For example, adults should be able to say a few words but not chat while performing vigorous-intensity physical activity such as lap swimming, jogging, step aerobics or playing football.

In Children: this can include brisk walking, cycling, playing games that include chasing, ball games, swimming, dancing etc that gets the child hot and breathless.

Aerobic activity: also called endurance activity, improves cardiorespiratory fitness with repetitive, dynamic use of large muscles. Examples include brisk walking, running, cycling, skipping, and swimming.

Cardiorespiratory fitness: the ability of the circulatory and respiratory systems to supply and use oxygen during sustained physical activity.

Muscle-strengthening: Also called resistance training is exercise designed to increase strength and power by making muscles work harder than usual.

Bone-strengthening: exercises that make you work against gravity and produces a force on the bones that promote bone growth and strength. Examples include brisk walking, jogging, jumping jacks, lifting weights, hopscotch, skipping, and sports such as football, netball and volleyball. Note that bone-strengthening activities can also be aerobic and/or muscle-strengthening activities.

Flexibility: exercises that enhance the ability of a joint to move through its full range of motion

Balance training: exercises that improve an individual's ability to resist forces within and outside the body. These are particularly useful for fall prevention.

Accumulation: refers to meeting the recommended minimum limit of physical activity by performing activities in multiple instances such as 2 bouts of physical activity lasting 30 minutes that accumulate up to 60 minutes.

KEY MESSAGES

- Some physical activity is better than none, and more physical activity is better than some.
- It is never too late to start being physically active and gain health benefits from it
- The benefits of being physically active outweigh the harms across all age groups.
- As a rule of thumb, 1 minute of vigorous intensity activity provides similar health benefits as 2 minutes of moderate intensity physical activity
- As a rule of thumb, a person doing moderate-intensity physical activity can talk, but cannot sing, and a person doing vigorous-intensity physical activity can only say a few words before pausing to catch their breath.
- Use of protective equipment such as helmets, appropriate footwear, gloves, etc should be encouraged to reduce risk of injuries when partaking in activities that may pose such injury risks.
- Babies and children should perform physical activities under direct adult supervision.
- Babies and children should be facilitated and encouraged to be physically active and to minimize sedentary behaviours by adults such as parents, older siblings, educators and caregivers.
- Babies, children, people with disabilities or chronic conditions, and older adults may require additional support from others to achieve the physical activity guidelines.

THE GUIDLINES

CHILDREN 0-4 YEARS

Overview of the target population

These guidelines are relevant to all healthy infants and children aged 0-4 years in the Maldives unless specific medical conditions indicate otherwise. For optimal health, infants and children should be enabled to live an active lifestyle and engage in a range of physical activities that support growth and development while maintaining quality sleep, and limiting sedentary screen time and prolonged sitting.

Engaging in physical activities in a variety of;

- environments (home, school, community; indoors, outdoors; water-based, field-based, land),
- contexts (structured and unstructured play, active transportation, hobbies, chores, with and without props), and
- intensities (light, moderate, vigorous)

is recommended.

Infants and children with disabilities should meet these recommendations following consultation with their health care provider to ensure the types and intensities of physical activity they undertake are appropriate for their abilities and health.

For infants and children who are inactive or do not meet the recommended levels at present, a progressive increase towards them is recommended. Some physical activity is better than none, and the benefits of achieving the recommended levels of physical activity outweigh the potential risks.

Achieving these guidelines is associated with improved motor development (0-4 years), cognitive development (1-4 years), fitness (1-4 years) and reduced adiposity (0-4years).

C. CHILDREN 3–4 YEARS

1. Should spend at least 180 minutes doing physical activities of any intensity of which at least 60 minutes is moderate- to vigorous-intensity physical activity (energetic play) spread throughout the day.
2. More physical activity is better.

SEDENTARY BEHAVIORS:

A. INFANTS (below 1 year)

1. Should not be restrained more than 1 hour at a time (e.g., in high chair, stroller, baby carrier, baby bouncers or walking aids).
2. Screen time is not recommended at all.
3. When sedentary, caregivers are encouraged to engage with infants in interactive activities such as reading, storytelling and singing.

B. CHILDREN 1–2 YEARS

1. Should not be restrained more than 1 hour at a time (e.g., in high chair, stroller, baby carrier or baby bouncer) or sit for prolonged periods.
2. For children 1 year of age, sedentary screen time is not recommended at all (e.g., watching TV or videos, playing video or computer games).
3. For children 2 years of age, sedentary screen time should be no more than 1 hour per day, and less is better.
4. When sedentary, caregivers are encouraged to engage with children in interactive activities such as reading, storytelling and block building.

C. CHILDREN 3–4 YEARS

1. Should not be restrained more than 1 hour at a time (e.g., stroller) or sit for prolonged periods.
2. Sedentary screen time should be no more than 1 hour per day, and less is better (e.g., watching TV or videos, playing video or computer games).
3. When sedentary, caregivers are encouraged to engage with children in interactive activities such as reading, storytelling and block building.

SLEEP:

A. INFANTS (below 1 year)

1. Should have 14–17 hours (0–3 months of age) or 12–16 hours (4–11 months of age) of good quality sleep, including naps.

B. CHILDREN 1–2 YEARS

2. Should have 11–14 hours of good quality sleep, including naps.
3. Should have regular sleep and wake-up times.

C. CHILDREN 3–4 YEARS

1. Should have 10–13 hours of good quality sleep, which may include a nap.
2. Should have regular sleep and wake-up times.

Examples and tips to achieving the physical activity guidelines:

Quality Sedentary Time: Can include time spent engaged in quiet play without electronic media. Although it does not involve major physical movements, activities such as puzzles, building blocks, drawing, colouring, cutting, painting, singing, storytelling and reading are important for child development, particularly for cognitive development.

In young children, physical activity will most likely take the form of energetic play rather than organised exercise, physical education or sport.

Quality Active Time: Can include playing throw and catch, blowing bubbles for children to try and catch, doing treasure hunts indoors or out, flying a kite outside, building sandcastles or searching for treasures at the beach, water play and swimming, going to the park or playground, walking to the shops, riding a tricycle or scooter, interactive games like Simon Says or Ice Water, Tag, Hide and Seek, traditional games like Pachas, Hiri and Rumaa vattaa, feekoi, gandu filla joining in on jobs around the house such as sweeping and folding clothes. Fun upper body strengthening exercises can be done at the playground or at home and include

activities like human wheelbarrow walk, swinging on monkey bars and climbing playground equipment or trees. Activities as a family such as walking to the beach to catch the morning sun and strolling barefoot on the beach can be great for bonding as well as for health and development.

Encourage babies and young children to walk barefoot on different textures indoors and outdoors, for example at the beach.

Energetic Play Time or moderate – vigorous intensity activities for 3-4 year olds: Jumping rope, skipping, games that require kicking, throwing or catching, games such as Tag, Ice Water, hopscotch, dodge ball or traditional ones such as Pachas and Hiri, riding a bicycle, playing at the playground, gymnastics and swimming are great activities that can be done at moderate or vigorous intensities

Water based play is a great option for infants and young children as it provides a sensory and social element while achieving the physical activity. Introducing infants and young children to the water early can help familiarize themselves and boost confidence in and around water.

CAUTION: Infants and young children should always be assisted by and supervised by an adult and activities should be performed in a safe environment.

Tummy time: babies may be unfamiliar with tummy time at first. Start with 1 or 2 minutes at a time and do this several times a day. As baby becomes more comfortable with it, gradually increase the duration. Additional activities can be incorporated to tummy time by exposing the baby to attractive books and toys that are colourful and make noise. Placing the toy in various locations or moving the toy slowly side to side and up and down, can encourage eye coordination movements, head and neck movements, reaching, grasping and other essential strengthening movements. It can also be a great bonding time between baby and parent, siblings or carer.

CAUTION: Babies should not sleep on their tummies!

Interactive and Independent Play: Children 0-4 years of age learn by doing, copying, manipulating objects, repeating, asking questions and through interacting with others. Enabling and encouraging interactive play is important for children of all abilities as regular exposure helps cognitive development and language. Additionally, it is also essential that children are given the opportunity to play independently as this allows their imagination and problem-solving skills to develop.

All play opportunities should be provided to children in a safe and fun environment!

CHILDREN 5-17 YEARS

Overview of the target population

These guidelines are relevant to all healthy children and young people aged 5–17 years in the Maldives unless specific medical conditions indicate otherwise. For optimal health, children and young people are encouraged to live an active lifestyle and engage in a range of physical activities that support growth and development while maintaining quality sleep, limiting sedentary screen time and prolonged sitting.

Engaging in physical activities in a variety of;

- environments (school, home, community; indoors, outdoors; water-based, field-based, land),
- contexts (structured and unstructured play and recreation, sport, active transportation, hobbies, chores, with and without props), and
- intensities (light, moderate, vigorous)

is recommended.

Children and young people with disabilities should meet these recommendations following consultation with their health care provider to ensure the types and intensities of physical activity they undertake are appropriate for their abilities and health.

For children and young people who are inactive or do not meet the recommended levels at present, a progressive increase toward them is recommended. Some physical activity is better than none, and the benefits of achieving the recommended levels of physical activity outweigh the potential risks.

ADULTS 18-64 YEARS

Overview of the target population

These guidelines are relevant to all healthy adults aged 18-64 years in the Maldives unless specific medical conditions indicate otherwise. The guidelines are also relevant to adults in this age range with chronic NCDs that are not related to mobility such as hypertension or diabetes. Pregnant and postpartum women, and persons with cardiac events may need to take extra precautions and follow medical advice to ensure the level of physical activity they undertake are appropriate for their abilities and health.

People with disabilities should meet these recommendations wherever possible following consultation with their health care provider to ensure the types and intensities of physical activity they undertake are appropriate for their abilities and health.

Some benefits of achieving the physical activity guidelines:

- Improves cardiovascular fitness
- Improves musculoskeletal fitness
- Reduces risk of a range of diseases, e.g. coronary heart disease, stroke, type 2 diabetes
- Improves body composition
- Helps maintain a healthy weight
- Helps maintain ability to perform everyday tasks with ease
- Improves self-esteem
- Reduces symptoms of depression and anxiety
- Helps in management of chronic diseases including some NCDs

OLDER ADULTS 65 YEAR AND ABOVE

Overview of the target population:

These guidelines are relevant to all healthy adults aged 65 years and above in the Maldives unless specific medical conditions indicate otherwise. The guidelines are also relevant to adults in this age range with chronic NCDs. Persons with cardiovascular disease and diabetes may need to take extra precautions and follow medical advice to ensure the level of physical activity they undertake are appropriate for their abilities and health.

People with disabilities should meet these recommendations following consultation with their health care provider to ensure the types and intensities of physical activity they undertake are appropriate for their abilities and health.

Some benefits of achieving the physical activity guidelines:

- Helps maintain cognitive function
- Reduces cardiovascular risk
- Helps maintain ability to perform activities of daily living
- Improves mood and can improve self-esteem
- Reduces symptoms of depression and anxiety
- Reduces the risk of falls and the extent of injury
- Promotes social interaction (depending on type of activity)
- Helps in management of chronic diseases including some NCDs
- Better quality of life

Guidelines for Older Adults 65 years and above:

PHYSICAL ACTIVITY:

1. Older adults should engage in physical activity every day to gain health benefits. Doing some physical activity is better than doing none, and more is better than some.
2. Start off slowly and build up to the recommended levels of physical activity.
3. Accumulate 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- to vigorous-intensity aerobic physical activity every week throughout the week
4. For additional health benefits, adults may increase moderate-intensity aerobic physical activity more than 300 minutes; OR do more than 150 minutes of vigorous-intensity physical activity OR an equivalent combination of moderate- to and vigorous-intensity aerobic physical activity throughout the week.
5. Muscle strengthening activities at moderate or greater intensity involving all major muscle groups should be done on at least 2 days every week.
6. Older adults should do varied multi component physical activities that emphasized functional balance and strength training at moderate or greater intensity, on 3 or more days a week to maintain and enhance functional capacity and to prevent falls
7. Older adults who cannot do the recommended levels of physical activity due to health conditions should aim to be as physically active as their abilities and conditions allow.

It is recommended that all older people consult an appropriate health care provider before starting or increasing physical activity levels

SEDENTARY BEHAVIORS:

1. Limit the time spent being sedentary; replace with more physical activity of any intensity (including light intensity)
2. Higher amounts of sedentary behaviours are associated with the following poor health outcomes; all-cause mortality, cardiovascular diseases mortality and cancer mortality and incidence of cardiovascular diseases, cancer and incidence of type 2 diabetes.

PREGNANT AND POSTPARTUM WOMEN

Overview of the target population:

Physical activity before, during and after pregnancy benefits a woman's overall health and wellbeing. Extensive scientific evidence shows that healthy women who maintain moderate-intensity physical activity during pregnancy and postpartum period gain multiple health benefits for themselves as well as the child. In addition to maintaining physical activity levels, balancing a routine with sleep and rest while minimising sedentary behaviors can help achieve optimal health gains during pregnancy, postpartum period and after.

Some benefits of achieving the physical activity guidelines:

During pregnancy:

- Maintains cardiorespiratory fitness
- Reduces risk of excessive weight gain
- Reduces risk of gestational diabetes
- Reduces symptoms of postpartum depression
- Reduces risk of excessive postpartum weight retention
- Reduces risk of having an infant with high birth weight
- Reduces risk of pregnancy complications including preeclampsia
- Helps maintain ability to perform activities of daily living
- Improves mood
- Better quality of life

During postpartum period:

- Increases cardiorespiratory fitness
- Helps achieve and maintain a healthy weight
- Reduces symptoms of postpartum depression
- Improves mood
- Better quality of life

ADOPTING THE GUIDELINES AND TAKING ACTION

The Maldives Guidelines on Physical Activity for Health draw upon careful consideration of scientific evidence, global and country recommendations and best practices, as well as social country contexts. However, having the benchmark and guidance developed does not get a country more active. It takes all-round effort, clear communication and persistence at all levels ranging from policy makers, public and private sectors, professionals, educators, carers, communities, and individuals to create real change. Action is necessary to create a societal shift in attitudes towards physical activity to ensure that physical activity becomes a way of everyday life for everyone in the Maldives.

Policy makers and professionals from a wide range of organisations who partake in formulating and/or implementing policies, programmes and activities that promote physical activity, exercise, sport, recreation, active transportation, urban planning to achieve and boost health benefits can use these guidelines and adapt them in a variety of ways to tailor it to the needs and interests of people and contexts they work with. Although individuals themselves make the final choice to live an active lifestyle, there are several obstacles to becoming more active in a modern world where life revolves around speed and convenience. Hence, every opportunity to encourage and enable people of all ages and abilities to move more and sit less should be taken advantage of. This is particularly important for population groups that may need extra attention and assistance such as people with disabilities and limited mobility, older people, people with certain illnesses and medical conditions, pregnant and postpartum women, and children.

Community-led activities, school policies, increasing sports opportunities, parks, playground and outdoor exercise facilities, national mass-media campaigns, workplace wellness initiatives, building human resource such as teachers and carers, or the little things such as spending quality active time as a family, opting for active transportation such as bicycle riding or walking, facilitating physically active playtime for babies and children, helping young children learn skills needed to be physical active such as swimming, or merely reducing screen time at an individual level are among a multitude of effective ways that physical activity can be promoted by everyone.

All in all, more and more partners from various sectors need to engage to maximise the reach and ensure that every Maldivian is able to achieve the Maldives Guidelines on Physical Activity for Health. Having a consistent set of guidelines for all population groups of Maldives makes the big task ahead easier in terms of consistency in messaging based on scientific evidence and best practices.

APPENDIX A: KEY GUIDING DOCUMENTS

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