

SINGAPORE PHYSICAL ACTIVITY GUIDELINES (SPAG)

START MOVING, MAKE EVERY MOVE COUNT



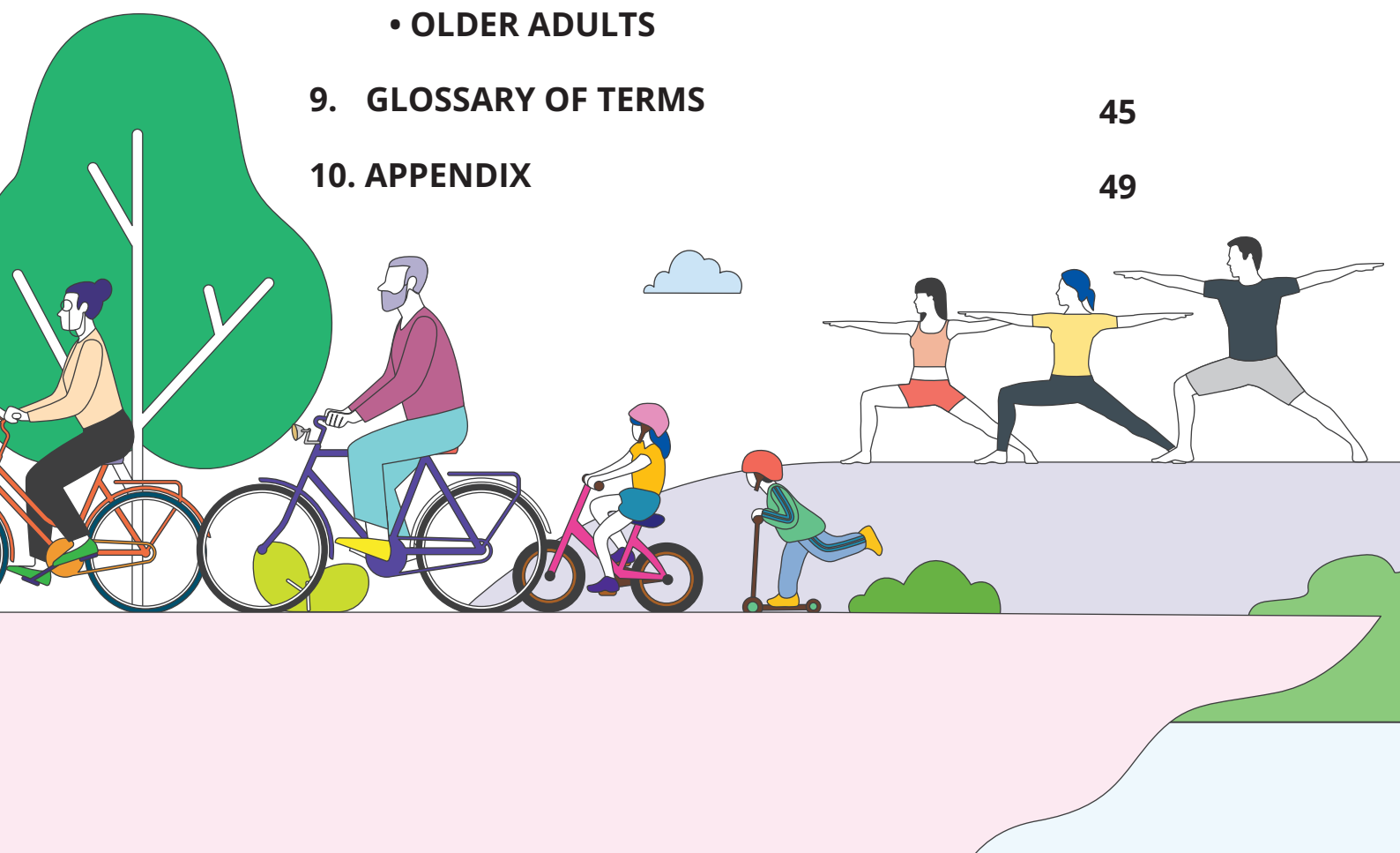
**150-300
mins**
Moderate-intensity
aerobic activity
per week

**Muscle Strengthening
at least 2 days a week**

**Vary Your
Movements**

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FOREWORD

Regular physical activity offers multifarious benefits to all ages. It impacts the physical health in many ways, including reducing the risk of chronic diseases as well as building stronger bones and muscles for functional fitness. It also helps improve one's mental and emotional well-being by reducing stress and anxiety.

Since the national physical activity guidelines for adults and for children and youth were published in 2011 and 2013 respectively, new evidence has progressively emerged in the last decade and has been adopted by the World Health Organisation (WHO) through the publication of the *WHO Guidelines on physical activity, sedentary behaviour and sleep for children under 5 years of age* in 2019 and the *WHO Guidelines on physical activity and sedentary behaviour* in 2020.

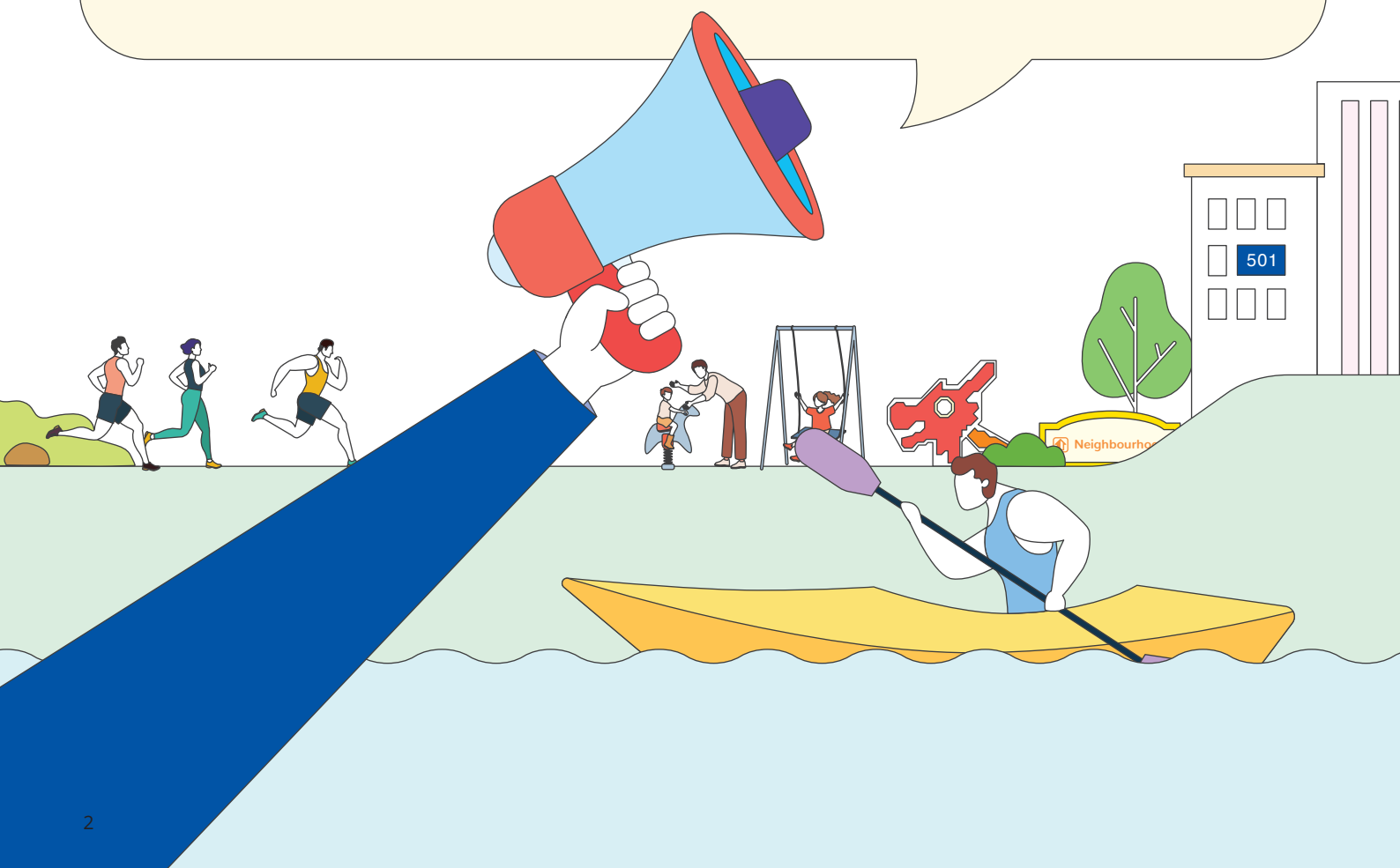
To support Singaporeans in keeping active in ways that are relevant to them, the Singapore Physical Activity Guidelines (SPAG) 2022 adopts the WHO guidelines and sets out recommendations on physical activity and reducing sedentary behaviour for different population segments, cutting across life stages – from children to adults and older adults. Through these recommendations, we hope to make active lifestyles attainable for everyone.

We would like to extend our appreciation to the SPAG advisory committee for developing the guidelines with us. These guidelines serve as a national reference for many different stakeholders – medical professionals, educators, employers, fitness professionals and community leaders – who play a part in promoting physical activity among our population. The guidelines are also meant for the general community; we hope they will leverage the recommendations to equip themselves with the knowledge and apply the simple, practical tips to embark on a more active lifestyle.

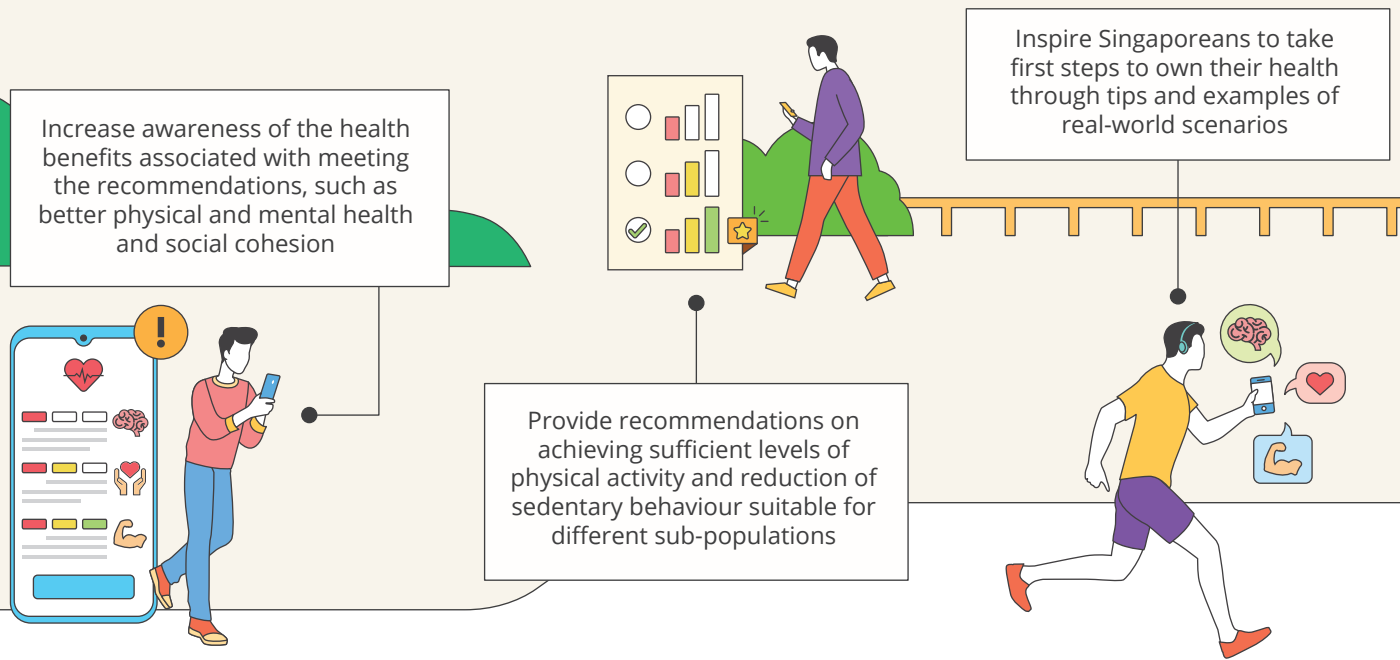
By offering a useful guide to all Singaporeans to live better through sport and physical activity, we will pave the way for a more active and healthier nation.

Lim Teck Yin,
CEO, Sport Singapore

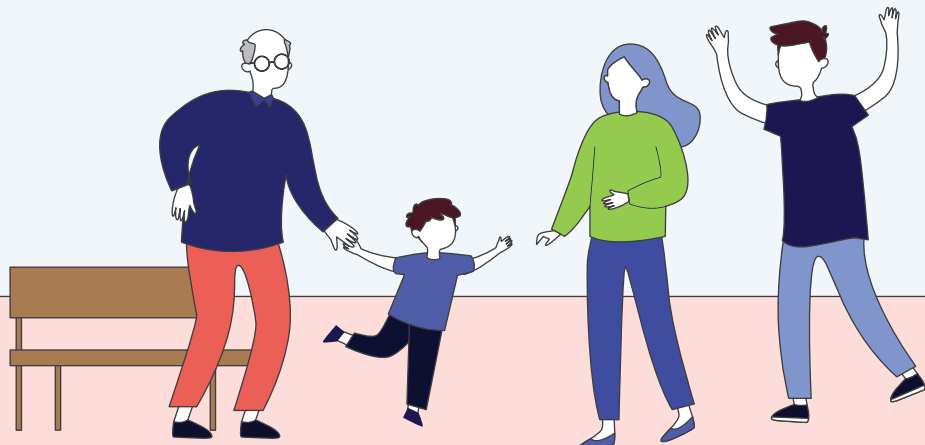
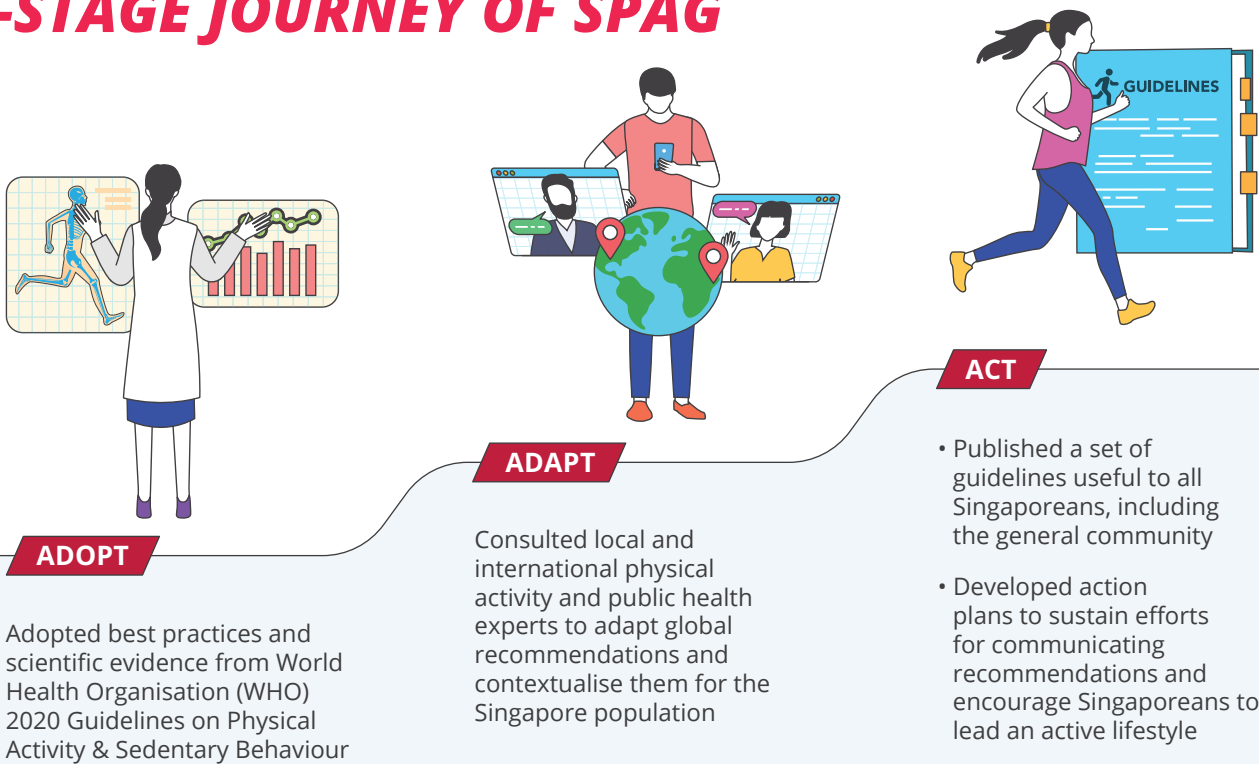
Koh Peng Keng,
COO, Health Promotion Board



SPAG OBJECTIVES



3-STAGE JOURNEY OF SPAG



FACTORS CONTRIBUTING TO THE NEED FOR UPDATES IN SINGAPORE'S GUIDELINES

EVOLVING TRENDS AND EMERGING EVIDENCE IN PHYSICAL ACTIVITY

Lifestyle trends and physical activity research has continued to evolve over the years

- ✓ Previous guidelines were launched in 2011 for adults and in 2013 for children and adolescents
- ✓ It is timely and strategic to provide new recommendations and best practices to keep up with emerging evidence and meet current lifestyle trends
- ✓ New set of guidelines is expanded to be inclusive of segments such as pregnant and post-partum women, individuals with chronic diseases and individuals with disabilities
- ✓ There is also an added emphasis on recommendations to break up and reduce sedentary behaviour

ALIGNMENT WITH WHO'S PLANS

The WHO has set targets to tackle global physical inactivity

- ✓ Launch of the Global Action Plan on Physical Activity (GAPPA) in 2018, with the vision to have more active people and a healthier world by reducing physical inactivity
- ✓ Updates to Singapore's guidelines can contribute to achieving the shared goals and vision of GAPPA

SINGAPORE PHYSICAL ACTIVITY GUIDELINES AS A KEY TOOL FOR PROMOTING PUBLIC HEALTH



IMPROVE PUBLIC AWARENESS

Educate the general local community on physical activity guidelines and provide practical tips to build towards an active lifestyle.



CALL TO ACTIONS

Influence policy actions or implementation of programmes that can support or promote a culture of active living.



SUPPORT HEALTHCARE PROFESSIONALS

Inform and support local health and fitness professionals with evidence-based recommendations.



SET STANDARDIZED BENCHMARKS

Standardize benchmarks for monitoring progress of the nation towards meeting physical activity recommendations.



TARGET AUDIENCE

PUBLIC / GENERAL COMMUNITY

- Infographics with simple and positive language that is easily digestible to drive behavioural change
- Applying practical tips into daily life and build towards an active lifestyle, one step at a time regardless of life stage and level of readiness

PRACTITIONERS

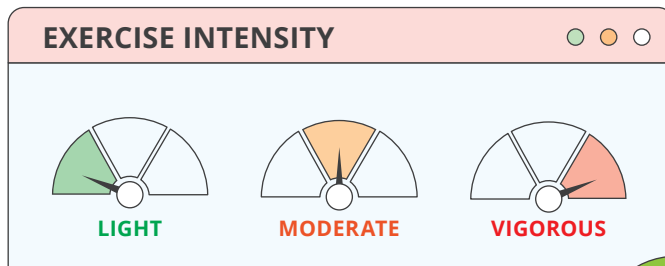
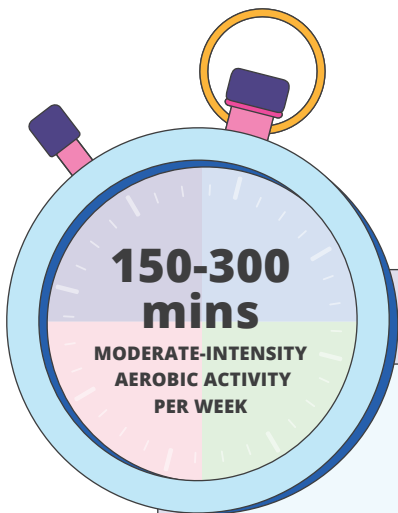
- Consumer-friendly information that is evidence-based and ready to be used without the need for redesign
- Encourage ground-up initiatives for the community by adopting the guidelines and adapt to suit the needs of target audiences

POLICYMAKERS

- Evidence-based recommendations which have been adapted to the Singapore context
- Support efforts in promoting an active living culture in Singapore through policies and regulations, including influencing the built environment and social norming active behaviours



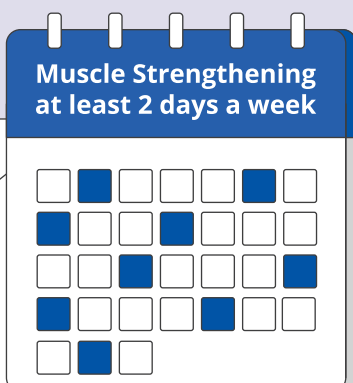
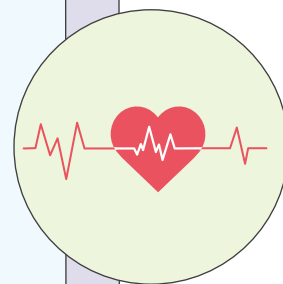
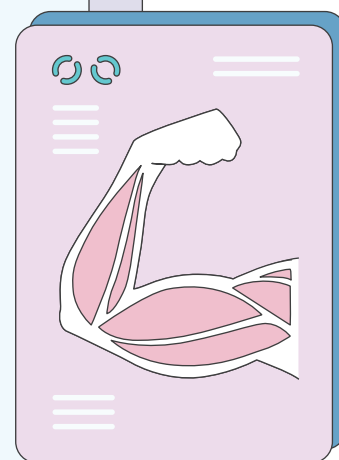
EXECUTIVE SUMMARY



The WHO defines physical activity as any bodily movement produced by skeletal muscles that requires energy expenditure and recommends both moderate- and vigorous-intensity physical activity for an improved health. Sedentary behaviour is defined as any waking behaviour while in a sitting, reclining, or lying posture with low energy expenditure. Importantly, large amounts of sedentary behaviour are directly associated with poorer health outcomes.

Adopting the best practices from the WHO Guidelines on Physical Activity and Sedentary Behaviour, SPAG seeks to provide public health recommendations for children, adults, and older adults on the amount of physical activity (frequency, intensity, and duration) required to achieve significant health benefits and mitigate health risks.

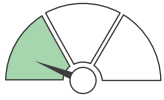
The guidelines are intended for policymakers, practitioners, and the public. The final recommendations presented are for all populations and age groups ranging from preschool to 65 years and older and are relevant to people of all abilities. Those with chronic medical conditions and/or disability, pregnant, and postpartum women should try to meet the recommendations where possible.



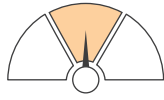
THE BENEFITS OF PHYSICAL ACTIVITY

Physical activity is defined as “any bodily movement produced by the contraction of skeletal muscles that increase energy expenditure above a resting level”. Physical activity can broadly be classified into three intensities – light, moderate and vigorous. When performing physical activity at a light-intensity, an individual should be able to talk and sing while moving. At a moderate-intensity, talking is comfortable, but singing becomes more difficult. At a vigorous-intensity, neither singing or prolonged talking is possible.

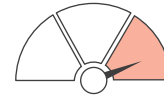
EXERCISE INTENSITY



Light
Can talk in full sentences and sing



Moderate
Can talk in phrases or short sentences but cannot sing



Vigorous
Have difficulty talking

5 TYPES OF ACTIVITIES FOR HEALTH AND PERFORMANCE

AEROBIC



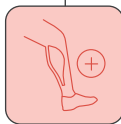
Activity that increases heartbeat and effort needed to breathe
Benefit:
Improves cardiovascular fitness

BONE STRENGTH



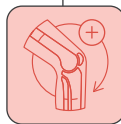
Activity that produces a force on the bones
Benefit:
Promotes bone growth and strength

MUSCULAR STRENGTH



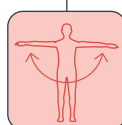
Activity that requires the body's muscles to work or hold against an applied force or weight
Benefit:
Increases skeletal muscle strength, power, endurance, and mass

FLEXIBILITY

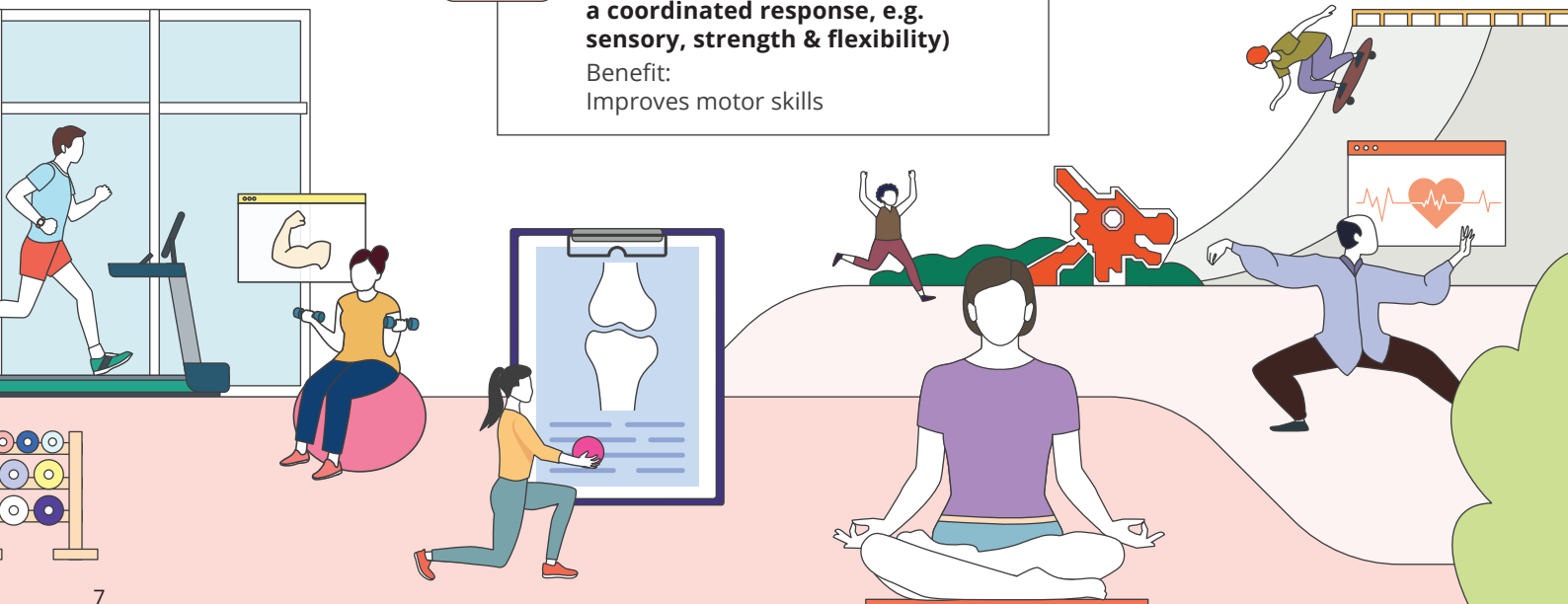


Activity that causes the body's muscles to be lengthened but in a controlled manner
Benefit:
Enhances ability of a joint to move through its full range of motion

BALANCE



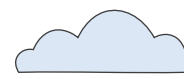
Activity that develops the ability to stay in control of the body when stationary or moving (causes the body to produce a coordinated response, e.g. sensory, strength & flexibility)
Benefit:
Improves motor skills



THE BENEFITS OF PHYSICAL ACTIVITY

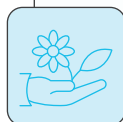
EVERY MOVE COUNTS

No matter your ability, you will benefit from Moving More

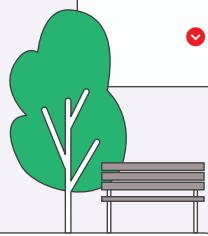


THE BENEFITS OF PHYSICAL ACTIVITY

PHYSICAL WELLBEING



- Cardiometabolic health (e.g. Type-2 Diabetes)
- Weight management
- Bone and muscle health
- Quality of sleep
- Energy levels
- ❖ Various cancers
- ❖ Medical conditions and all-cause mortality



MENTAL WELLBEING

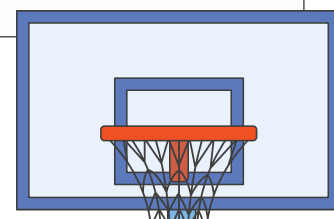


- Cognitive function
- Happiness and life satisfaction
- ❖ Depression, stress & anxiety
- ❖ Dementia

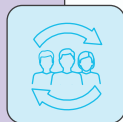
INDIVIDUAL DEVELOPMENT



- Creativity and critical thinking
- Social skills and interaction
- Academic performance and attention



COMMUNITY DEVELOPMENT

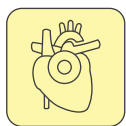


- Social cohesion
- Sense of belonging
- National pride



IMPACT ON OUR PHYSICAL WELLBEING

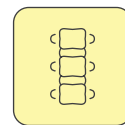
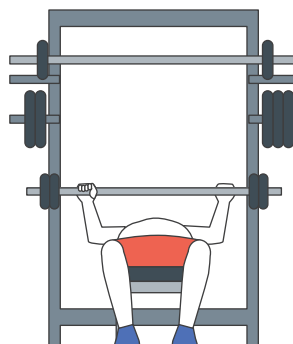
An active lifestyle reduces the risk of Non-Communicable Diseases (NCDs)



Coronary Heart Disease

♥ **14%**

Regular aerobic activity strengthens the heart muscle, reducing strain at rest.



Osteoporosis

♥ **29%**

Weight-bearing physical activity improves bone mineral density and reduces bone loss.



Uterine Cancer

♥ **20%**



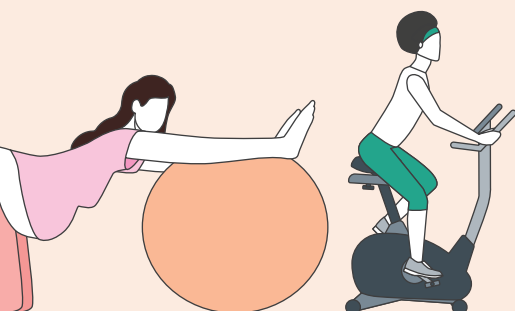
Colon Cancer

♥ **14%**



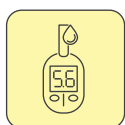
Breast Cancer

♥ **25%**



Cancer

Physical activity helps to maintain a healthy weight and regulates hormone levels, reducing risk of cancer in the following 8 site-specific cancers: bladder, breast, colon, endometrial, oesophageal adenocarcinoma, gastric, and renal.



Type-2 Diabetes

♥ **26%**

Physical activity increases insulin sensitivity and controls blood glucose levels.



Stroke

♥ **20%**

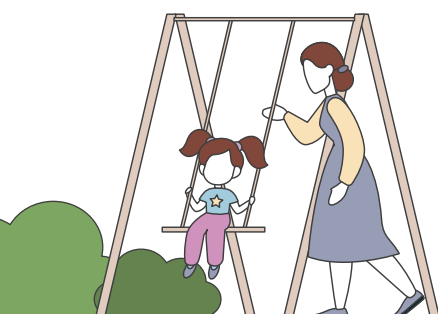
Physical activity reduces risk of high blood pressure and cholesterol levels, which are key causes of strokes.



Hypertension

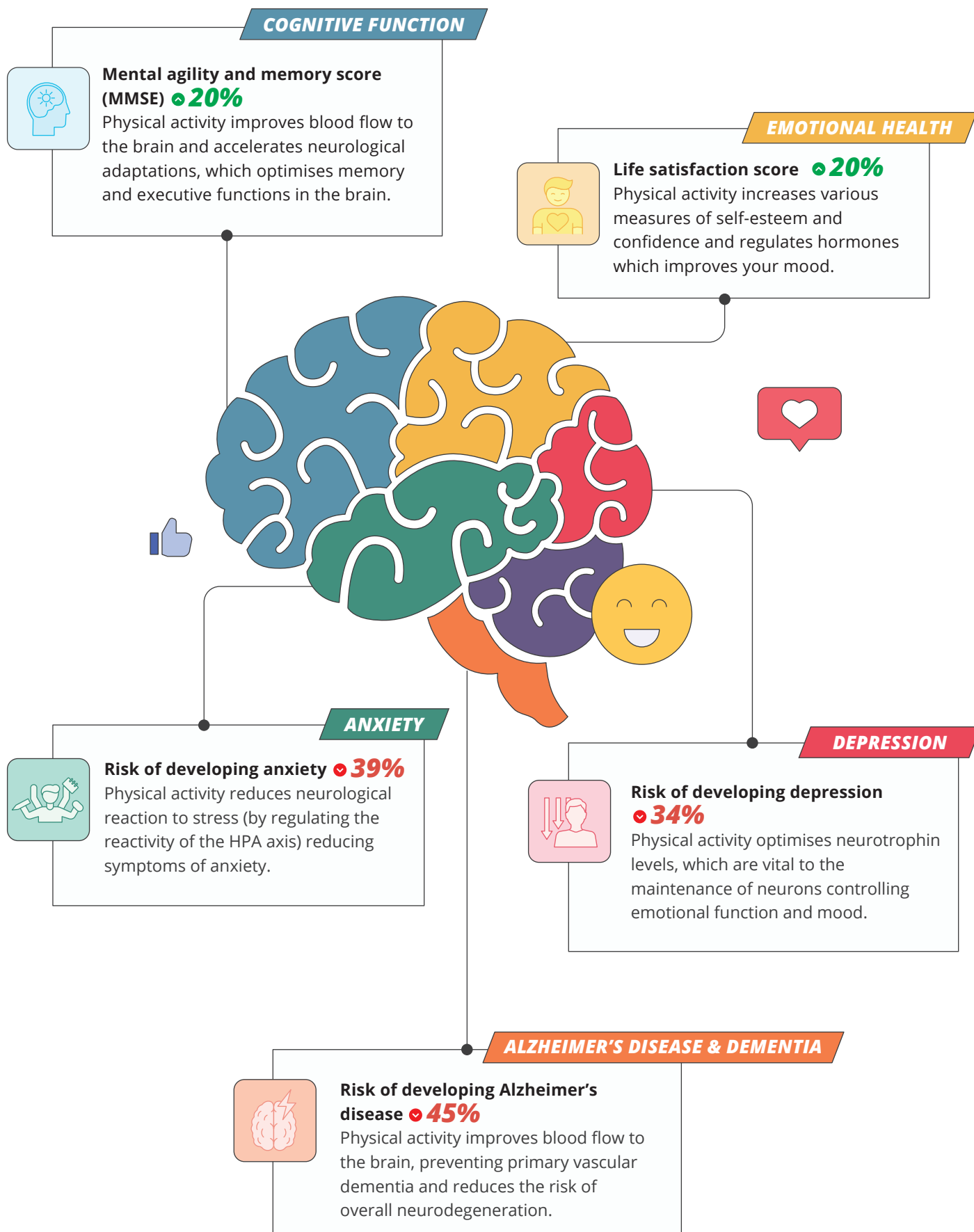
♥ **26%**

Physical activity reduces cholesterol deposits in blood vessels, reducing blood pressure.



IMPACT ON OUR MENTAL WELLBEING

Physical activity can significantly improve brain health, increase functional capacity, and reduce the risk of mental illnesses



IMPACT ON INDIVIDUAL AND COMMUNITY DEVELOPMENT

Engaging in physical activity, particularly in a group setting, improves an individual's psychosocial health, which leads to greater productivity and better quality of life.



Increases social interaction and improves social skills

Physical activity provides the opportunity for social interaction which helps improve interpersonal relationships.



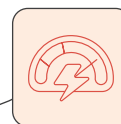
Improves creativity and critical thinking

Physical activities, especially sports, require broader ways of thinking to succeed.

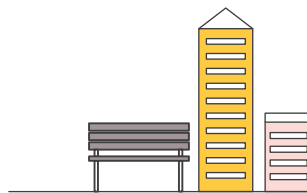
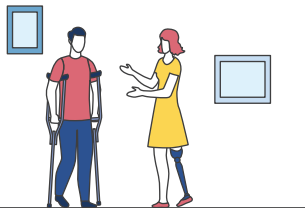


Moderately improves test scores

Physical activity results in better academic outcomes due to a greater ability to concentrate.



Acute bouts of exercise strengthens selective attention



Additionally, the 'National Sports Participation Survey' shows that participation in sports or other group physical activities can provide benefits for community development.



Cohesion

- Participation in sports has the potential to bring people from diverse backgrounds together.
- Individuals are 25% more likely to interact with another race when they engage in sports.



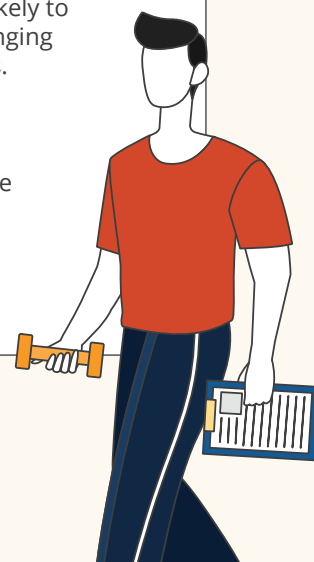
Interaction

- Sports and group physical activities offer opportunities for social interaction, which can lessen social isolation.
- Individuals are 11% more likely to experience a sense of belonging when they engage in sports.



National Pride

- Physically active individuals are more likely to be engaged in their community, and have trust in state institutions.
- Individuals are 11% more likely to feel national pride when they engage in sports.

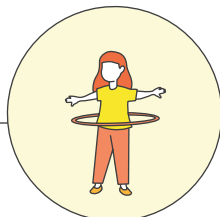


IMPACTS OF PHYSICAL ACTIVITY ON INDIVIDUALS THROUGHOUT DIFFERENT STAGES OF LIFE

*Not an exhaustive list

PHYSICAL ACTIVITY IMPROVES:

- Bone health
- Mental health
- Cognitive function
- Motor skills
- Weight status
- Social skills

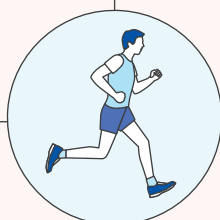


CHILDREN & ADOLESCENTS

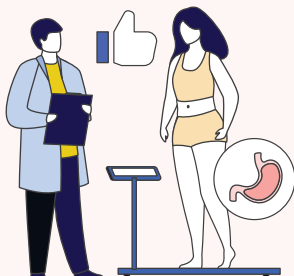


PHYSICAL ACTIVITY IMPROVES:

- Weight status
- Cognitive function
- Sleep
- Mental health



ADULTS

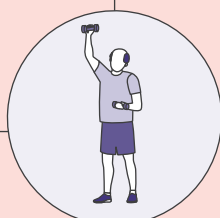


REDUCES RISK OF:

- Stroke and heart disease
- Hypertension
- Type-2 Diabetes
- 8 types of site-specific cancers

PHYSICAL ACTIVITY IMPROVES:

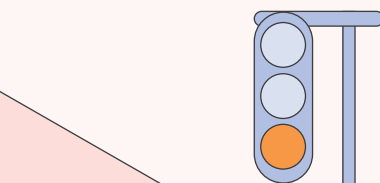
- Physical function
- Cognitive function
- Bone health



OLDER ADULTS

REDUCES RISK OF:

- Dementia
- Falls
- Frailty



EXERCISE SAFETY

While physical activities bring about countless benefits, it is important to stay safe during physical activities. Use the SAFER acronym as a way of remembering the key safety tips:

- **S** is for screening, sustainability and suitability of exercise and equipment use
- **A** is for awareness of environment (weather), hydration, nutrition, and rest
- **F** is for fitness level, knowing one's limits (ability and competency)
- **E** is for exercise with buddies to help take care of each other and be aware of emergency protocol and equipment
- **R** is for responsibility of taking ownership of one's safety and learn CPR/AED to support others if needed



SUITABILITY



Based on your health/age/medical conditions, do you need to consult a health professional before starting?

- Use pre-participation screening tools such as the Get Active Questionnaire to assess your readiness to take part in physical activity.
- If you have been diagnosed with any illness or are unsure what activities you can do, consult a medical/health professional before you begin.

Are you wearing suitable clothing? Do you have appropriate equipment? Is your equipment safe and in working condition?

- Before you start any type of physical activity, ensure that you have the appropriate attire, and equipment in working condition.

AWARENESS



What is the weather like? What time is best to exercise? Are you hydrated / Have ready access to water?

- Avoid adverse weather or heat conditions, e.g. rain or noon hours when the Sun is the hottest. For heat management, consider first ensuring you are heat acclimatised, pace accordingly, take more frequent breaks, and seek out shelters when it is hot/rainy day. To also dress light and hydrate appropriately.

Is the environment safe?

- Ensure that the space around is free of trip-hazards.

FITNESS



When did you last exercise?

- If you have not exercised in a while, start slow and build up intensity and duration gradually. Listen to your body and adapt exercises accordingly.

How are you feeling? Are you appropriately warmed up?

- Listen to your body and adapt exercises accordingly. It is important to incorporate warm-ups and cool-downs of at least 5-10 minutes into your routine.

EXERCISE WITH A BUDDY



Do you have a buddy to exercise with?

- Exercising with a friend will allow you to support one another if anything unforeseen happens.

Are you aware of the emergency protocol and safety equipment close to your exercise location?

- Knowing the emergency protocol and where the closest Automated External Defibrillator (AED) is when exercising may help save a life.

RESPONSIBILITY



Do you know CPR/AED?

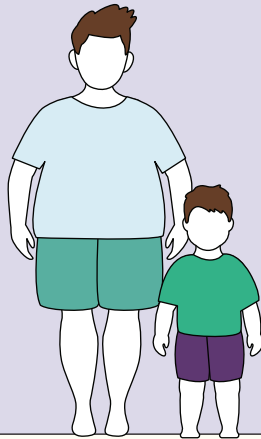
- Take ownership and learn CPR/AED so that you can support those around you in case of an unexpected event.

PHYSICAL HEALTH STATUS & ACTIVITY LEVELS IN SINGAPORE

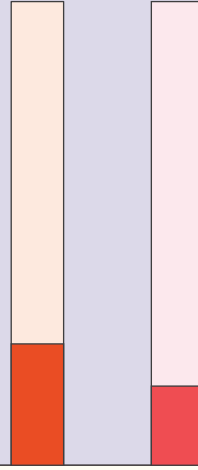
PERCENTAGE OF SINGAPOREANS AGED 5 TO 19 YEARS OLD WHO ARE OVERWEIGHT (2016)

27%

MALE

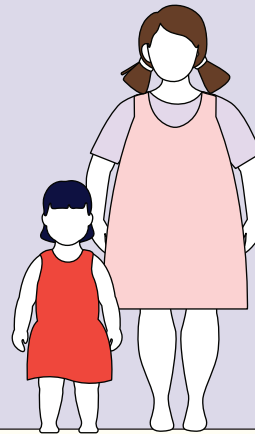


**+0.5%
since 2001**



18%

FEMALE



PERCENTAGE OF SINGAPOREANS AGED 11 TO 17 YEARS OLD THAT MEET THE WHO PHYSICAL ACTIVITY GUIDELINES (2016)

THE WHO RECOMMENDS:

An average of at least 60 minutes per day of moderate- to vigorous-intensity activity.

Incorporating vigorous-intensity aerobic activities, including activities that strengthen muscle and bone, minimally 3 times a week.



30%

**ACTIVE
BOYS**

+8% since 2001

24%

**ACTIVE
OVERALL**

+5% since 2001

17%

**ACTIVE
GIRLS**

+2% since 2001



PHYSICAL HEALTH STATUS & ACTIVITY LEVELS IN SINGAPORE

PERCENTAGE OF NON-COMMUNICABLE DISEASES HAVE INCREASED IN RECENT YEARS FOR SINGAPOREANS AGED 18 TO 74 YEARS OLD (2020)

TYPE-2 DIABETES

+0.7%

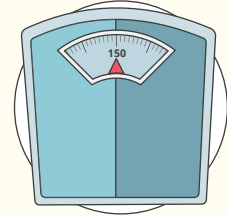
since 2017



OBESITY

+1.9%

since 2017



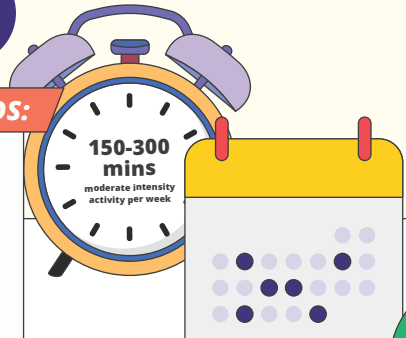
PERCENTAGE OF SINGAPOREANS AGED 18 TO 74 YEARS OLD THAT MEET THE WHO PHYSICAL ACTIVITY GUIDELINES (2020)

THE WHO RECOMMENDS:

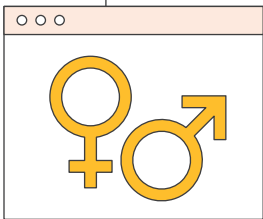
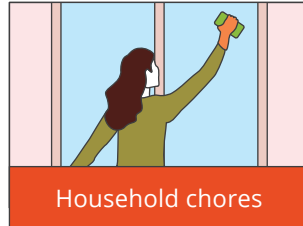
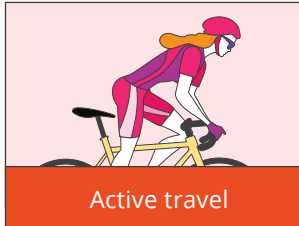


A minimum of 150–300 minutes of moderate-intensity aerobic physical activity per week

Engage in muscle-strengthening activities at moderate or greater intensity on at least 2 days a week



76.4%
ACTIVE
BOTH GENDERS EQUAL
-3.7% since 2019

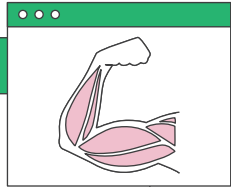


33.8%

engaged in sufficient muscle strengthening activity in 2020

More common among young adults aged 18 to 29 years (44.1%) compared with 30 to 59 years (~33.3%) and 60 to 74 years (25.5%)

Males at 40.1% while females 27.8%



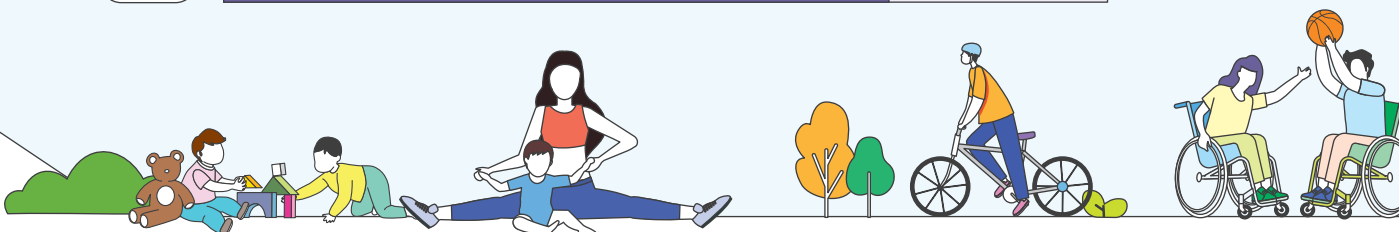
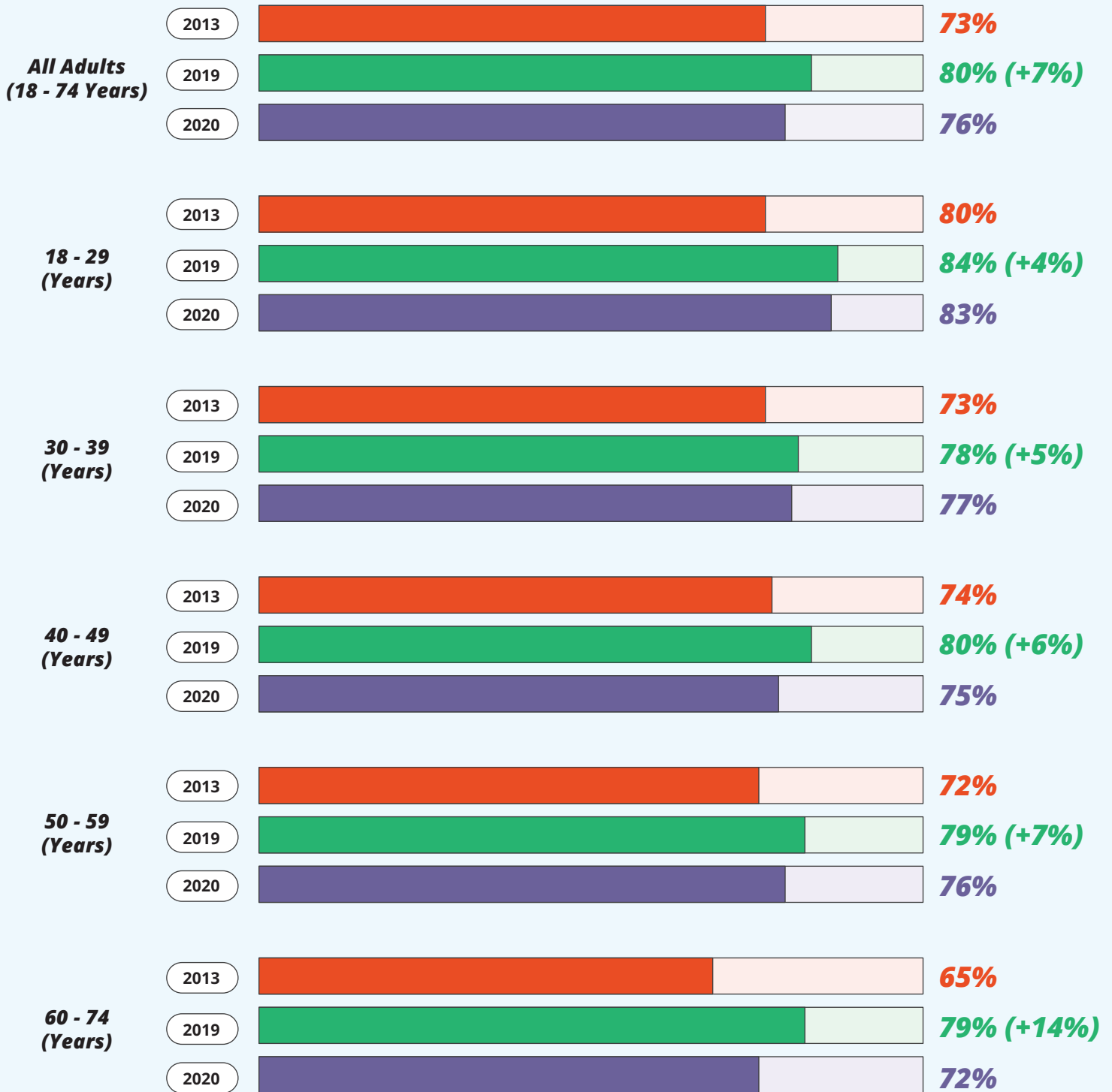
Includes those meeting both 'high' and 'moderate' classification of total physical activity
High: Vigorous Intensity activity on at least 3 days of 1,500 MET** Minutes*/week OR 7 or more days of activities of a minimum of 3,000 MET Mins
Moderate: 3 or more days of vigorous-intensity activity of at least 20 mins /day, OR 5 or more days of moderate-intensity activity of at least 30 mins/day OR 5 or more days of activities achieving a minimum of at least 600 MET Minutes/week

PHYSICAL HEALTH STATUS & ACTIVITY LEVELS IN SINGAPORE

Since the release of the guidelines in 2011, an overall increase in physical activity levels was observed across all adult age groups, despite small dip in 2020 which is likely attributed to the COVID-19 pandemic



PERCENTAGE OF ADULTS AGED 18 TO 74 YEARS OLD THAT MEET THE WHO PHYSICAL ACTIVITY GUIDELINES



GUIDELINES BY SUB-POPULATION: PRESCHOOL, SCHOOL CHILDREN & YOUTHS

UPDATES IN THE SINGAPORE PHYSICAL ACTIVITY GUIDELINES (SPAG) PRESCHOOL (0 - 6 YEARS)

Previous (2013)	What's New
Limit sedentary entertainment screen time to 2 hours.	Sedentary time limit revised to a maximum of 1 hour.
Engage in physical activity for 180 minutes daily regardless of age. Sleep recommendations not included.	Activity recommendations broken into 3 further sub-groups to reflect different developmental needs as preschool children grow. Introduction of sleep time recommendations.



UPDATES IN THE SINGAPORE PHYSICAL ACTIVITY GUIDELINES (SPAG) SCHOOL CHILDREN AND YOUTHS (7 - 17 YEARS)

Previous (2013)	What's New
Limit sedentary entertainment screen time to 2 hours. Break up sedentary periods of 90+ minutes with 5-10 minutes of physical activity.	Removed time-specific recommendations.
Engage in physical activity for 60 minutes daily. Minimum bouts of 5 minutes. Fundamental movement skills not emphasised in previous edition.	Engage in an average of 60 minutes of physical activity per day over the week. No minimum duration. Greater emphasis on the importance of developing fundamental movement skills in school children and youths by engaging in different activities.



IT IS RECOMMENDED THAT...

Preschool, school children and youths should limit the amount of time spent in sedentary behaviours, especially recreational screen time as it has been highlighted as the key factor. Instead, they should engage in a variety of physical activities regularly.

Infants below one year old should be encouraged to engage in at least 30 minutes of tummy time per day. Young school children should aim for at least 180 minutes of physical activity of any intensity spread throughout each day. It doesn't have to be all at once and every minute counts. Additionally, for all children aged three years and older, 60 minutes of the time spent actively should be of moderate- to vigorous-intensity.

Preschool, school children and youths should also engage in vigorous-intensity aerobic activities, muscle and bone strengthening exercises at least 3 days a week, where doing a variety of activities can help to build their Fundamental Movement Skills (FMS).

SINGAPORE PHYSICAL ACTIVITY GUIDELINES FOR PRESCHOOL CHILDREN (0 - 6 YEARS)



Preschool children should meet all recommendations for physical activity, sedentary behaviour and sleep habits to reap health benefits associated with regular physical activity and reduced sedentary behaviour.


MOVE WITH FUN & GROW

RECOMMENDATIONS






0-2 YEARS:

SEDENTARY TIME	PHYSICAL ACTIVITY	QUALITY SLEEP
<p>START PLAYING</p> <p>Limit the amount of time spent being sedentary, with recreational screen time not recommended.</p> <p>Instead, engage in imaginative play and storytelling activities.</p> 	<p>PLAY MORE</p> <p><u>0-1 years</u> Encourage interactive floor-based activities for a minimum of 30-minutes a day.</p> <p><u>1-2 years</u> Spend at least 180 minutes doing a variety of physical activities of any intensity, spread throughout the day.</p> <p>Aim for daily outdoor play.</p>	<p>SLEEP WELL</p> <p>0-3 months: 14 to 17 hours 4-11 months: 12 to 15 hours 1-2 years: 11 to 14 hours</p> 


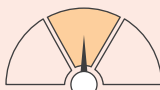
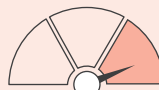
3-6 YEARS:

SEDENTARY TIME	PHYSICAL ACTIVITY	QUALITY SLEEP
<p>START PLAYING</p> <p>Limit the amount of time spent being sedentary, keeping recreational screen time to less than an hour a day.</p> 	<p>PLAY MORE</p> <p>Spend at least 180 minutes doing a variety of physical activities, of which at least 60 minutes should be moderate- to vigorous-intensity activity, spread throughout the day.</p>	<p>SLEEP WELL</p> <p>3-4 years: 10 to 13 hours 5-6 years: 9 to 13 hours</p>

TIPS

-  Create a home environment that encourages movement and exploration.
-  Introduce activity-based games. E.g. Animal movements, dance activity.
-  Encourage a wide variety of movements like running, jumping, catching, throwing, and kicking, in different environments, to build Fundamental Movement Skills (FMS).
-  Visit outdoor playgrounds for your child to engage in social play and interact with others while being active.
-  Establish a consistent bedtime routine to help your child develop good habits.

EXERCISE INTENSITY

-  **Light**
Can talk in full sentences and sing
-  **Moderate**
Can talk in phrases or short sentences but cannot sing
-  **Vigorous**
Have difficulty talking

SINGAPORE PHYSICAL ACTIVITY GUIDELINES FOR SCHOOL CHILDREN & YOUTHS (7 - 17 YEARS)



School children and youths can engage in physical activity through many different settings and not only through recreation and leisure, such as home, in school, and in community settings. They should meet all recommendations for physical activity, sedentary behaviour and sleep habits to reap health benefits associated with regular physical activity and reduced sedentary behaviour.

MOVE WITH PLAY & GROW



RECOMMENDATIONS

PLAY FOR 60 & MIX IT UP / Physical Activity

Accumulate an average of **60 minutes in moderate- to vigorous-intensity aerobic activity per day across the week.**

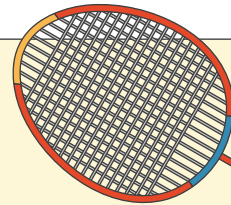
*Every minute of vigorous-intensity activity can generally be considered as two minutes' worth of moderate-intensity activity.

A variety of **vigorous-intensity aerobic activities, muscle- and bone-strengthening exercises** should be incorporated **at least 3 days a week** to promote the development of movement skills.



PLAY MORE / Sedentary Behaviour

Limit the amount of time spent being sedentary, particularly recreational screen time, by **engaging in activities of any intensity, including those of light-intensity.**



SLEEP WELL / Quality Sleep

7-13 years: **9 to 12 hours**
14-17 years: **8 to 10 hours**

TIPS



Incorporate active travel into the weekly routine, such as walking or cycling to school.



Explore a variety of activities to help school children and youths develop active hobbies or interests.



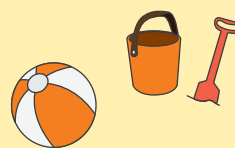
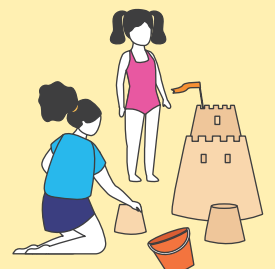
Visit outdoor playgrounds for your child to engage in social play and interact with others while being active.



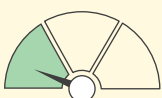
Stand up while studying or take movement breaks in between study sessions.



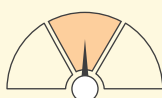
Consider joining a sports team/club/organisation to experience physical activity in a social setting, which helps school children and youths stay motivated.



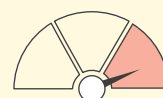
EXERCISE INTENSITY



Light
Can talk in full sentences and sing



Moderate
Can talk in phrases or short sentences but cannot sing



Vigorous
Have difficulty talking

EXAMPLES OF AEROBIC, MUSCLE & BONE STRENGTHENING ACTIVITIES FOR SCHOOL CHILDREN

*Not an exhaustive list

MODERATE-INTENSITY

VIGOROUS-INTENSITY

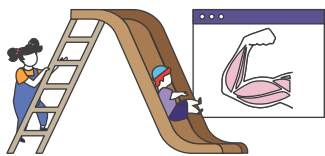
AEROBIC



- Games at the Playground (Hide and Seek)
- Commute by cycling
- Casual racquet sports

- Games at the Playground (Tag/Catching)
- Mountain biking
- Competitive racquet sports

MUSCLE STRENGTHENING*



- Games at the playground (e.g. tug-of-war)
- Climbing

- Circuit training
- Hopping, jumping, and rope-skipping
- Playing a football match

BONE STRENGTHENING*



- Games at the playground (e.g. hopscotch)
- Casual basketball or netball games
- Gymnastics

- Martial arts
- Competitive basketball or netball games
- Dancing

* All muscle and bone strengthening activities of moderate- or vigorous-intensity are also considered as aerobic activities

EXAMPLES OF FUNDAMENTAL MOVEMENT SKILLS

LOCOMOTOR SKILLS

Enabling children to move through different environments, moving their bodies from one location to another.

Examples of key locomotor skills:

- Walking
- Running
- Jumping
- Hopping
- Skipping
- Sliding

OBJECT CONTROL SKILLS

Making controlled contact with objects using parts of the body or using an implement.

Examples of object control skills:

- Rolling
- Throwing
- Catching
- Kicking
- Striking
- Dribbling

STABILITY SKILLS

Maintaining and acquiring balance in static and dynamic movements.

Examples of stability skills:

- Balancing
- Turning
- Twisting
- Stretching
- Transferring of weight

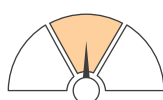


EXERCISE INTENSITY



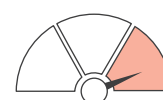
Light

Can talk in full sentences and sing



Moderate

Can talk in phrases or short sentences but cannot sing



Vigorous

Have difficulty talking

CASE STUDIES: PRESCHOOL CHILDREN

CASE STUDY #1



SHANTI, 3

Preschooler with two busy working parents

Shanti is a quiet girl who enjoys being at home with her parents. She sleeps for 12 hours each night and has been in preschool since she was six months old. Both her parents are office workers, and her dad usually picks her up from school at 7pm. Due to the busy schedules of her parents, Shanti relies on her school teachers to support her daily physical activity needs. This usually includes some dancing, games, and arts and craft tactile work.

On weekends, Shanti goes to the playground in the evening with her parents to meet her friends and she engages in a combination of running, jumping, and climbing for 60 minutes whilst socialising. Her busy parents who work on weekends tend to give her a handphone to keep her occupied. Recently, this has become more frequent and resulted in less active time for Shanti.

Shanti's parents are doing great by encouraging her to play at the playground on weekends for an average of 60 minutes per day as this gives her an opportunity to activate a variety of different muscle groups and energy systems in an unstructured play setting. However, on weekdays, it is tough for Shanti to meet her daily 60 minutes of physical activity due to the late pick-ups from school. For working parents with young children, it is important to:



Plan for some form of physical activity for young kids such as play time at the playground or at home.



Expose your kids to ball activities to develop their movement skills.

CASE STUDY #2



JIE YANG, 5

Energetic and active preschooler

At preschool, Jie Yang gets light to moderate physical activity time through class activities such as dancing and organised outdoor ball games. At home, Jie Yang is always on the move, particularly after dinner when his playtime includes moderate-intensity activities such as chasing, hide-and-seek, and pillow fights. Sometimes, evening playtime extends beyond his bedtime, and he goes to bed as late as 11.00pm. The early start to the day for school results in difficult mornings as Jie Yang struggles to wake up.

On weekends, Jie Yang goes swimming with his dad in the morning and his mother arranges for playground play dates with his preschool friends in the afternoon. This allows him to run, jump, and fall in a safe environment which supports the development of his movement skills in an unstructured way. The exposure to water and land-based activities also helps develop his movement competency in a range of environments.

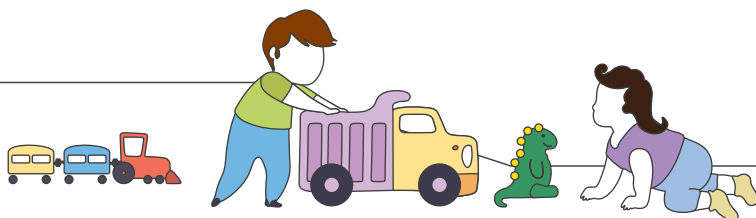
Jie Yang is doing well by mixing up his activities across the week with unstructured and structured play. Parents should:



Encourage your child to sleep early, particularly on weekdays, to support recovery and rest.



Combine both structured and unstructured play in your child's routine to allow him/her to build physical competency in diverse environments like land and water.



CASE STUDIES: SCHOOL CHILDREN & YOUTHS

CASE STUDY #1



DE WEI, 9

Sedentary school child who enjoys e-games

De Wei is a primary school boy who enjoys e-gaming. Apart from walking to and from school on weekdays, he does not engage in any other structured physical activity. De Wei's biggest passion is playing online games with his friends on weekends. When he is not gaming, he is studying for his school exams. His parents spend a lot of time supporting De Wei in his studies and feel that there is no time for leisure time physical activity. De Wei often feels lethargic and tired, and he tends to eat high-sugar foods to give him energy boosts before school or during an intense gaming session.

While De Wei is getting some light intensity exercises intermittently throughout the week, he should be aiming for higher levels of physical activity. If your child is also passionate about e-gaming, consider the following:



Always set aside time throughout the week for leisure time physical activity as it helps to boost your child's mood and improves critical thinking.



Find a gaming system that involves movement to increase physical activity while gaming. Activities like dancing, tennis, bowling and boxing have been adapted to a virtual format so you can now interact with the game as a form of physical activity.

CASE STUDY #2



EMMA, 5

Teenage girl with a packed academic and social calendar

Emma is a secondary school girl who enjoys hip hop dance. This aerobic physical activity is intense, and Emma takes part in dance classes three times a week, with each session lasting 90 minutes. This adds up to a total of 4.5 hours of physical activity each week. Besides dancing, Emma takes part in her weekly physical education classes in school.

As the pressure from school continues to build up, Emma finds herself becoming more inactive in and out of school when she's not dancing with her friends. She feels tired all the time and struggles to squeeze all her studies and schoolwork into the time she has after school. On weekends when she's not studying, Emma likes to go for a walk at MacRitchie reservoir with her mother and has been doing it since she was a little girl. She finds the light-intensity walk in a nature setting calming and enjoys conversations with her mother about life in general. Like many of her friends, Emma spends many hours in front of a screen doing schoolwork and catching up on the latest social media trends.

Emma can focus on meeting the sleep recommendations of 8 to 10 hours every night to help her stay energised. This will also have a positive influence over her attention, memory, learning, behaviour, emotional regulation, quality of life, mental and physical health. She is doing great on a weekly basis and engages in physical activities. She has found a hobby that she is passionate about, and this will help to sustain the level of physical activity on a long-term basis. As an activity, dancing can engage multiple muscle groups and energy systems in each bout of activity. The balance and coordination component of dancing may also help to improve Emma's quality of movement and sense of movement competency. For most youths, it is important to:



Include activities that require multi-directional bodyweight movement to improve strength.



Head out during the weekends with friends and family for a stroll, and enjoy nature for light-intensity physical activity.



Limit screen time as it may impact one's quality of sleep.



Have a consistent sleep routine and sleep for about 8 to 10 hours every night.



Build in regular breaks to move around during times of prolonged sitting or inactivity.

SUMMARY OF EVIDENCE: PRESCHOOL CHILDREN

CHILDHOOD OBESITY:

Regular physical activity has been linked to an increase of healthy weight children in this age group, with carry-over effects that can persist into adulthood.

HABITS OF PHYSICAL ACTIVITY:

Physical activity habits established during childhood are likely to be carried through into adolescence.

COGNITIVE DEVELOPMENT:

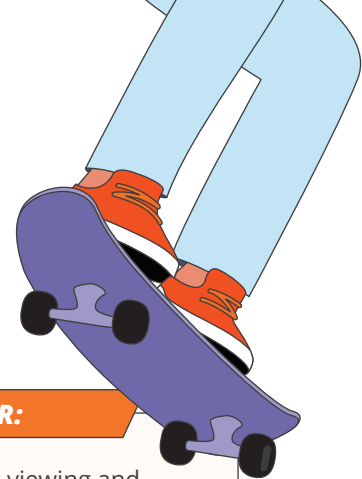
Lower levels and quality of sleep are associated with reduced cognitive function and poorer emotional regulation amongst young children.

MUSCULOSKELETAL DEVELOPMENT:


Moderate-intensity physical activity has been proven to improve bone mineral density and muscular development, and promotes the development of motor skills.




SUMMARY OF EVIDENCE: SCHOOL CHILDREN & YOUTHS




SEDENTARY BEHAVIOUR

	GENERAL FITNESS: Sedentary behaviour, especially recreational screen time, is related to poorer health outcomes, e.g. poorer fitness and cardiometabolic health in children and adolescents.	SOCIAL BEHAVIOUR: Increased duration of television viewing and video gaming are significantly associated with unfavourable measures of behavioural conduct/pro-social behaviour.
	OBSESITY: More than 2 hours of sedentary behaviour per day was positively associated with increased childhood obesity, as compared to lower durations of sedentary behaviour.	MENTAL HEALTH: The use of screen during leisure time is associated with depressive symptoms and psychological distress among children and adolescents.

AEROBIC ACTIVITY

	FITNESS: Increased physical activity improves cardiorespiratory fitness and musculoskeletal fitness in children and adolescents.	MENTAL HEALTH: Exercising and endurance training have a beneficial effect on depressive symptoms in children.
	COGNITIVE FUNCTION & ACADEMIC OUTCOMES: Physical activity has positive effects on cognitive function and academic outcomes (e.g. school performance, memory, and executive function).	CARDIOMETABOLIC HEALTH: Regular physical activity in children and adolescents is positively associated with beneficial cardiometabolic health outcomes.

VIGOROUS-INTENSITY AND MUSCLE/BONE STRENGTHENING ACTIVITIES

	GROWTH AND DEVELOPMENT: Vigorous-intensity activity promotes strength gains, strong joints, and healthy bones, which are vital for optimal growth and development.	BONE HEALTH: Physical activity increases bone mass, bone mineral content, and bone strength, which can help to protect from osteoporosis and related fractures later in life.
	MOVEMENT SKILLS: Physical activity in school children and youths is positively associated with increased proficiency in motor/movement skills (physical literacy).	CARDIORESPIRATORY FITNESS: High-intensity interval training, compared with moderate-intensity continuous training, had a moderate beneficial effect on cardiorespiratory fitness.



GUIDELINES BY SUB-POPULATION: ADULTS

UPDATES IN THE SINGAPORE PHYSICAL ACTIVITY GUIDELINES (SPAG): ADULTS (18 - 64 YEARS)

Previous (2011)	What's New
Break up sedentary periods of 90+ minutes with 5-10 minutes of physical activity.	Removed time-specific recommendations.
Minimum bouts of 10 minutes of moderate-intensity physical activity per week.	No minimum duration.
Single time targets (e.g. 150 minutes of moderate-intensity aerobic activity per week).	Clocking in a target range e.g. 150 to 300 minutes of moderate-intensity activity per week.
No minimum intensity for muscle strengthening activity.	Muscle strengthening activity at moderate- or vigorous-intensity is encouraged, at least 2 days a week.

IT IS RECOMMENDED THAT...

Any level of physical activity is better than none. Where possible, adults should break up prolonged sedentary periods with light physical activity for health benefits.

Adults should accumulate a total equivalent of 150 to 300 minutes of moderate-intensity activity (mostly aerobic) throughout the week for health benefits. Spreading the activity throughout the week minimises the risk of injury and prevents excessive fatigue which can contribute towards meeting the recommendations.

Additionally, adults should engage in moderate-intensity muscle strengthening activities targeting the major muscle groups at least twice per week to build their strength. Finding the suitable weight/resistance is key and a general good practice is to complete 8 to 12 repetitions per set to achieve strengthening outcomes.

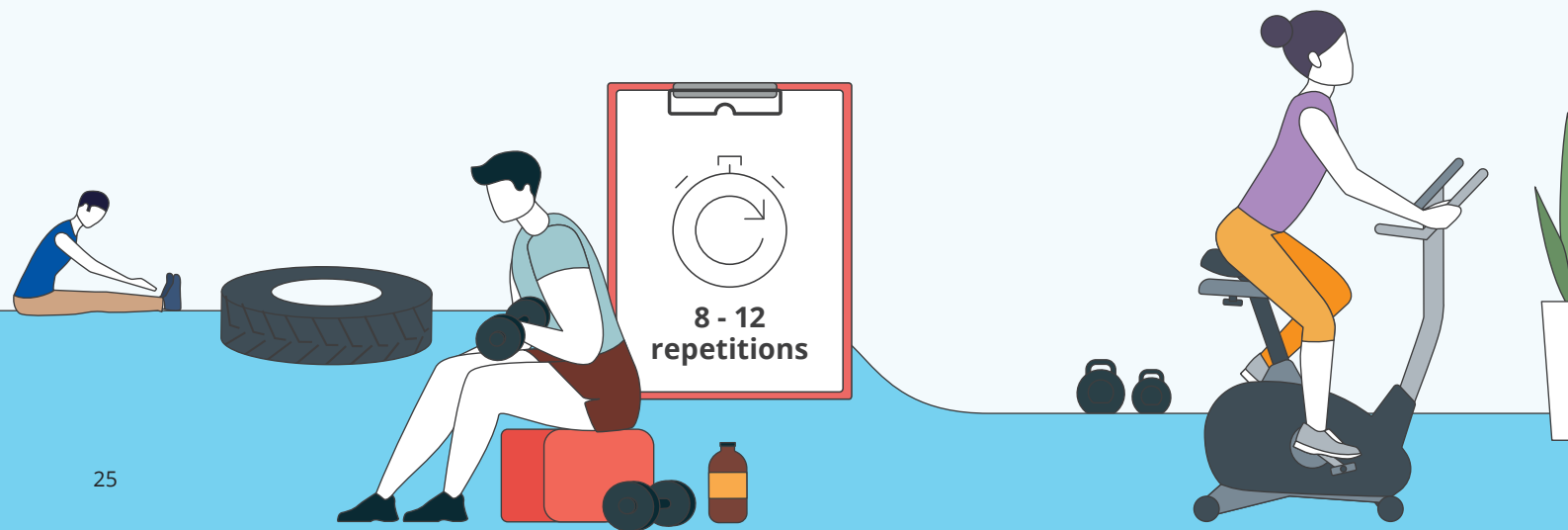
For adults with chronic conditions, the same recommendations and tips are still applicable but if unsure on how to begin, consult a health professional to determine a suitable exercise regime.

Meeting the recommendations can offer additional health benefits, such as:

Diabetes – Resistance training can aid in controlling hormone levels

Obesity – Physical activity expands energy and by engaging in sufficient activity to burn off excess calories, it can contribute to weight loss

Hypertension – Physical activity strengthens your heart and promotes better blood flow



SINGAPORE PHYSICAL ACTIVITY GUIDELINES FOR ADULTS (18 - 64 YEARS)



Adults are encouraged to engage in physical activity not only through recreation and leisure, but also when in different settings - At home (household chores), as a form of transportation (cycling, brisk walking, jogging), or in occupational and community settings.

MOVE MORE & THRIVE

RECOMMENDATIONS

GET MOVING AND MIX IT UP

Limit the amount of time spent being sedentary, particularly recreational screen time, by **engaging in activity of any intensity**.



HIT 150 - 300

Aim for at least **150 to 300 minutes** of moderate-intensity aerobic physical activity per week.

*Every minute of vigorous-intensity activity can generally be considered as almost two minutes' worth of moderate-intensity activity.



GET STRONGER

Strengthen muscles, bones, and joints through activities at moderate- or vigorous-intensity, at least 2 days per week.

For those over 50 years, include **multi-component physical activity that emphasizes strength and functional balance at least 3 days of the week** at a moderate or greater intensity.

150-300 minutes

For adults with chronic conditions (e.g. Type-2 Diabetes and Hypertension), the recommendations and tips are still applicable.

If unsure of how to begin, consult a health professional to determine a suitable exercise regime for you.

TIPS



Incorporate active travel into your daily routine, such as heading out to purchase your food and groceries personally and rely less on food deliveries.



Start with some light-intensity activity as opposed to being inactive.



Work out your muscle groups through different activities such as jogging, swimming, and playing a racquet sport.

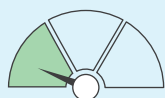


Start with small changes like taking the stairs instead of the lift, as better beats perfect.

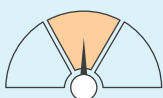


Being active can be enjoyable - try a new sport or explore one of the many local parks.

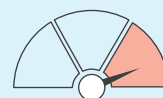
EXERCISE INTENSITY



Light
Can talk in full sentences and sing



Moderate
Can talk in phrases or short sentences but cannot sing



Vigorous
Have difficulty talking

EXAMPLES OF AEROBIC & MUSCLE STRENGTHENING ACTIVITIES BY TYPE

AEROBIC ←	MULTICOMPONENT	→ MUSCLE STRENGTHENING
<p>Jogging</p> <p>Leisure Dancing</p> <p>Rope Skipping</p> <p>Running</p>	<p>Cycling</p> <p>Kayaking</p> <p>Circuit Training</p> <p>Racquet Sports</p> <p>Swimming</p>	<p>Tai Chi</p> <p>Pilates</p> <p>Weight Training</p>



SUMMARY OF EVIDENCE: ADULTS

SEDENTARY BEHAVIOUR

CARDIOVASCULAR DISEASE:

High levels of sedentary behaviour, even in healthy individuals, are associated with an increasing risk of developing cardiovascular disease.

SLEEP:

High levels of sedentary behaviour, especially prolonged periods of sitting screen time, is associated with lower quality of sleep, impacting mood, cognitive and physical performance.

TYPE-2 DIABETES:

Relatively high amounts of sedentary time have been associated with significantly greater risk for Type-2 Diabetes.

MENTAL HEALTH:

Evidence suggests that higher levels of sedentary behaviour results in increased frequency and severity of anxiety and depressive symptoms.



AEROBIC ACTIVITY

BLOOD PRESSURE & HYPERTENSION:

Aerobic activity reduces blood pressure in pre-hypertension adults, and reduces incident hypertension, both key risk indicators of cardiovascular diseases.

CANCER:

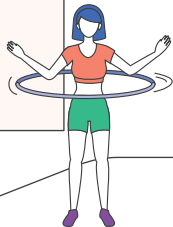
Higher levels of physical activity are associated with a reduced risk (10-20%) of multiple cancers such as colon, breast, bladder, liver, renal and more.

TYPE-2 DIABETES:

Inverse curvilinear relationship between physical activity and incidence of Type-2 Diabetes, with no significant difference by ethnicity and weight status.

MENTAL HEALTH:

Higher levels of aerobic activity was associated with a 17% lower incidence of anxiety and 24% lower incidence of depression among adults.



VIGOROUS-INTENSITY AND MUSCLE/BONE STRENGTHENING ACTIVITIES

BODY COMPOSITION:

Resistance training increases lean muscle mass and resting metabolic rate, aiding fat loss in adults, and reducing the rate of muscle loss.

BONE HEALTH:

Resistance training increases bone mineral density in adults, which helps to reduce incidence of lower back pain and mitigate symptoms of arthritis.

COGNITIVE FUNCTION:

Muscle-strengthening activity is associated with improvements in cognition (memory and processing speed) and lowered the risk of Alzheimer's disease.

MENTAL HEALTH:

Resistance training and yoga are correlated with improvements in sleep quality and mental health indicators, such as reducing symptoms of anxiety and depression.



CASE STUDIES: ADULTS

CASE STUDY #1



SHAFIQ, 24

Transitioning from student to full-time work

Shafiq led an active lifestyle when he first entered university and took part in many sporting events. As he had just finished his National Service, he was determined to maintain his fitness level while juggling schoolwork. During his free time, he and his peers would play football at the school field.

As Shafiq transits to a full-time working adult, he finds himself struggling to manage his time and to strike a balance between work and social life. He often works overtime on weekdays and occasionally on weekends too. When his friends invite him to dinner, he is often too tired from work and would rather stay home to browse social media or watch shows online. He has realised that his ability to perform basic movements has deteriorated in recent years due to his inactivity. Despite his busy schedule, Shafiq enjoys football and finds time to join his friends on some weekends for a few games. At times, Shafiq will also go for an evening jog if he feels overwhelmed by work as he finds it to be helpful in clearing his mind and reducing stress levels.

Shafiq has been doing a good job in trying to stay fit despite his busy schedule. By using pockets of time to clear his mind through exercise and playing football with friends, he can stay connected while keeping fit. For individuals like Shafiq, always remember to:



Find the time to incorporate workouts into your routine, for example, replace 30 minutes of social media time with a quick strength training session.



Bite-sized movement snacks during the workday can help improve systemic circulation and energise you after long bouts of sedentary behaviour.



Make full use of your travelling time by cycling to nearby places to get a quick workout.

CASE STUDY #2



AMANDA, 37

Working mother with 2 young children

As a parent with young children, Amanda usually prioritises her family's needs before her own, such as ferrying her children around and completing household chores. With her busy work schedule, she has little time for exercise. However, Amanda learnt about High Intensity Interval Training (HIIT) workouts which can help her achieve more in less time. She started doing HIIT during her free time and eventually incorporated a quick 20-min HIIT workout into her day. With HIIT, Amanda also included weights training and overtime, she noticed that her usual chores were not as tiring as she feels physically stronger. Even on days that are busy, Amanda still does a 20-min workout every other day because it has become something she enjoys, and it helps her feel more ready for the day. On weekends, Amanda also tries to engage in activities with her family, such as exploring local nature trails or cycling at the park connectors.

It is great to hear that Amanda has found an enjoyable way to meet the recommended level of physical activity despite her busy schedule. For working mothers who would like to do the same, try the following:



Attend weekly exercise programmes while incorporating muscle strengthening exercises at least 2 days a week.



Get your children involved and exercise together during the weekends for a good way to stay active while bonding at the same time.



Ride your scooter or bicycle when doing the pick-up or drop-off to move as a family on school days.

CASE STUDIES: ADULTS

CASE STUDY #3



NICHOLAS, 48

Delivery man with irregular working hours

Nicholas's job as a delivery man is physically demanding. He delivers parcels from the warehouse to different locations, requiring him to lift items of various sizes and weights and walking short distances to deliver the items (i.e., from the van to the apartment). He usually takes the lift to higher floors but sometimes chooses to take the stairs for deliveries to lower floors to save time.

As his work hours are irregular (working on both weekdays and weekends), he does not have a fixed exercise routine and uses random pockets of time to go fishing with his friends. On his day off, he meets up with his friends at the coffeshop for meals and drinks, where he can enjoy some downtime and relieve stress from work. Apart from this, he spends most of his off days resting at home.

Climbing stairs while making deliveries is a good practice to get an aerobic workout. Being a delivery man, he is already getting work-related physical activity in his daily routine. He may benefit from some strength, mobility, and flexibility exercises to enhance his quality of movement and build strength. If you're like Nicholas and have irregular working hours, here are some tips for individuals to achieve a healthier lifestyle.



Incorporate mobility and flexibility movements throughout the day to increase your systemic blood circulation and help the overworked joints and muscles feel better.



Try playing a sport with your friends before going for a meal together. By doing so, you get to spend quality time plus keep fit and relieve stress.



If you are exercising close to bedtime, try keeping to a light- or moderate-intensity exercise to avoid disruptions to your sleep.



Incorporate muscle-strengthening exercises at least 2 days a week to combat age-related muscle loss.

CASE STUDY #4



NISHA, 58

Retired, recently diagnosed with Type-2 Diabetes

Nisha is a hotel manager who is recently retired. She mindfully slows down her pace of life by revisiting old hobbies. She conducts part-time cooking classes at the nearby Community Centre and volunteers with a sports interest group as a local guide, occasionally organising community health and wellbeing events.

Unfortunately, Nisha was subsequently diagnosed with Type-2 Diabetes. She manages her condition by making gradual lifestyle changes like using healthier alternatives when cooking. She also keeps herself active by participating in a variety of community fitness classes such as zumba and yoga at least twice a week, and hikes with her interest group once a month. Nisha has always been motivated to learn more about taking ownership of her health, but her recent annual health check-up gave her a surprise. She learnt that she has low skeletal muscle mass and is at risk of sarcopenia. Worried and puzzled, Nisha hopes to understand why she is at-risk despite being active and how she can combat age-related muscle loss.

Nisha is a role model for her efforts in incorporating healthy practices into her daily life. Here are some other helpful tips that could benefit Nisha and others in a similar situation:



You can protect yourself from sarcopenia through more muscle- and bone-strengthening activities such as stretch band classes, aqua aerobics, and Tai Chi.



Participate in dance classes, such as zumba, at higher frequencies and alternate between dance activities and strengthening exercises, such as Active Health workshops aimed to combat age-related loss of muscles.

GUIDELINES BY SUB-POPULATION: PREGNANT & POSTPARTUM WOMEN

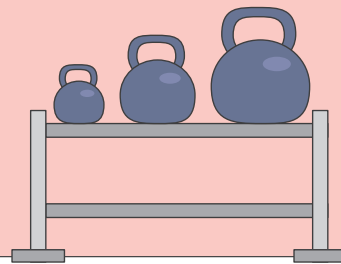
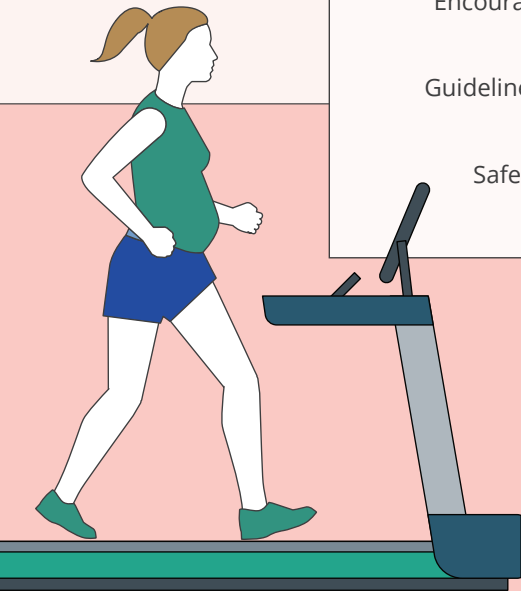
UPDATES IN THE SINGAPORE PHYSICAL ACTIVITY GUIDELINES (SPAG): PREGNANT & POSTPARTUM WOMEN

WHAT'S NEW

Encourage physical activity for pregnant and postpartum women without contraindications.

Guidelines for the adjustments to physical activity during and after pregnancy.

Safety considerations of physical activity for pregnant and postpartum women.



IT IS RECOMMENDED THAT...

A variety of aerobic, muscle-strengthening and light stretching exercises should be incorporated during pregnancy and the postpartum period.

Pregnant and postpartum women should avoid vigorous-intensity physical activity.

SAFETY CONSIDERATIONS



Avoid excessive heat



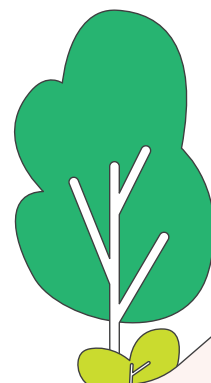
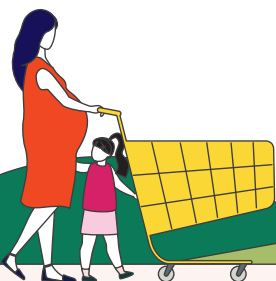
Avoid contact sports and exercises with high fall risks



Ease back into physical activity gradually



Consult your doctor when needed



SINGAPORE PHYSICAL ACTIVITY GUIDELINES FOR PREGNANT & POSTPARTUM WOMEN



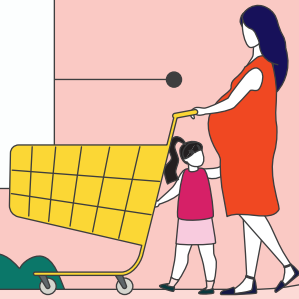
Pregnant and postpartum women without contraindications are encouraged to engage in physical activity not only through recreation and leisure, but also when in different settings - At home (light household chores), as a form of transportation (cycling, walking, jogging), or in occupational and community settings.

MOVE WITH CARE & NURTURE

RECOMMENDATIONS

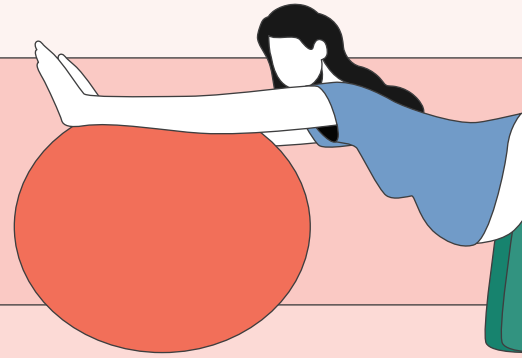
KEEP MOVING

Limit the amount of time spent being sedentary, particularly recreational screen time, by **engaging in activities of any intensity**.



HIT 150

Engage in at least **150 minutes** of moderate-intensity aerobic physical activity per week.



BUILD STRENGTH

Incorporate **muscle-strengthening** activities. Adding gentle stretching may also be helpful.



TIPS



Doing some physical activity is better than none.



Ease into your physical activity routine progressively. Listen to your body and seek your doctor's recommendation on suitable activities if you are unsure of how to start.



Core strengthening activities and pelvic muscle training may be performed regularly to strengthen the trunk and reduce the risk of urinary incontinence.

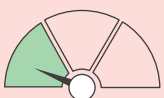


Start by doing small amounts of physical activity, and gradually increase frequency, intensity and duration over time.

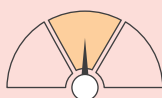


Avoid participating in activities which involve physical contact or a higher risk of falling.

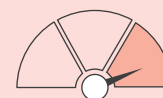
EXERCISE INTENSITY



Light
Can talk in full sentences and sing



Moderate
Can talk in phrases or short sentences but cannot sing



Vigorous
Have difficulty talking

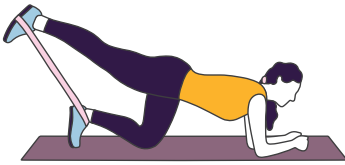
RECOMMENDED ADJUSTMENTS OF PHYSICAL ACTIVITY DURING & AFTER PREGNANCY

Women who have been engaged in light- to moderate-intensity physical activity before pregnancy should continue this regime during pregnancy and adjust the intensity of exercises according to their bodies during the postpartum period.

Women who have been physically active or who have engaged in vigorous-intensity aerobic activity can continue these activities during pregnancy and during the postpartum period.

INDIVIDUAL

BEFORE PREGNANCY



Commit to an active lifestyle by following the recommendations for an adult.

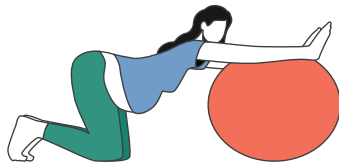
Light- to moderate-intensity

E.g.: Pilates, jogging, swimming

Vigorous-intensity

E.g.: Running, floorball, basketball, netball

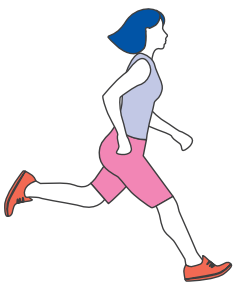
DURING PREGNANCY



Reduce intensity of activity, keep at moderate-intensity. Avoid contact sports and risk of falls.

E.g.: Elliptical, yoga, jogging, swimming

AFTER PREGNANCY



Listen to your body and ease into pre-pregnancy exercise regime gradually, building up intensity progressively.

Low-intensity

E.g.: Walking, light stretching

Moderate-intensity

E.g.: Brisk walking, post-natal yoga, swimming

Vigorous-intensity

E.g.: Floorball, running, basketball, netball, circuit classes



REMEMBER



It is safe to be active postpartum



You can be active whilst breastfeeding



Start pelvic floor exercises early to strengthen your muscles

SUMMARY OF EVIDENCE: PREGNANT & POSTPARTUM WOMEN

PREGNANT WOMEN



GESTATIONAL WEIGHT GAIN:

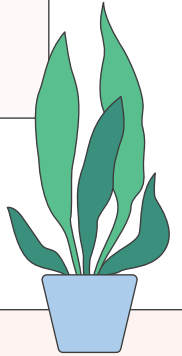
Engaging in physical activity during pregnancy is significantly associated with reduced gestational weight gain.

GESTATIONAL DIABETES:

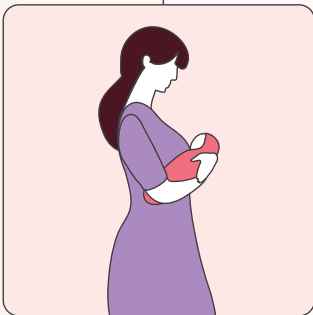
Engaging in physical activity before and during pregnancy is associated with a reduced risk of gestational diabetes.

PREMATURE BIRTH:

Women who engaged in vigorous-intensity physical activity had a small but significantly reduced risk of prematurity.



POSTPARTUM WOMEN



POSTPARTUM DEPRESSION:

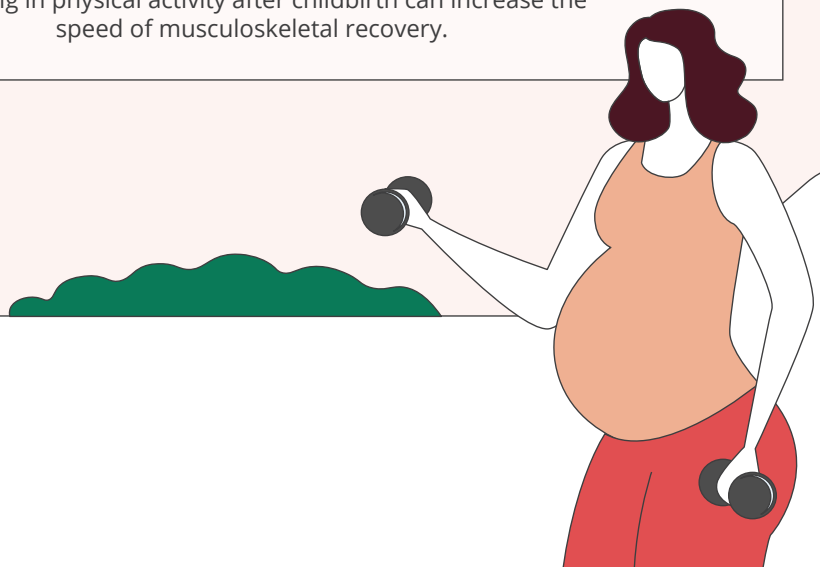
Evidence demonstrates that physical activity during pregnancy may reduce postpartum depression.

POSTPARTUM WEIGHT GAIN:

Regular physical activity can help minimise weight gain in the postpartum period.

RECOVERY:

Engaging in physical activity after childbirth can increase the speed of musculoskeletal recovery.



CASE STUDIES: PREGNANT & POSTPARTUM WOMEN

CASE STUDY #1



ISLA, 28

First-time mother who has always led an active lifestyle

Isla is 18 weeks pregnant. Before she got pregnant, Isla enjoyed an active lifestyle where she engaged in a variety of workouts, ranging from boxing to spin classes during her leisure time. She is motivated to continue being physically active, so she keeps her doctor informed of her activities throughout her pregnancy. She used to go for long hikes and continued to do so in her 1st trimester. As her pregnancy progressed, she slowly adapted to her body's condition and replaced hikes with daily 30-minute walks in the park. Isla also changed her weekly workouts to resistance band exercises to strengthen her muscles. Each weekend, Isla will attend a prenatal yoga session for additional strength training and to learn some simple exercises that she can safely do at home. Isla is looking forward to resuming her physical activity and trying out postnatal yoga after her delivery, once her doctor deems it is safe for her to do so.

Isla has adopted a great mindset of maintaining an active lifestyle throughout pregnancy. For expectant mothers like Isla, it is important to note the following:



Be mindful of exertions associated with exercise and pace yourself accordingly.

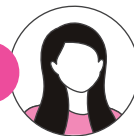


Consider trying yoga to maintain body strength or activities like aqua aerobics for a low-impact workout.



Due to Singapore's hot and humid climate, it is important to be mindful of your exercising environment as pregnancies make you more vulnerable to the heat.

CASE STUDY #2



JAIME, 32

Sedentary mother with an increased risk of Gestational Diabetes Mellitus

Ever since her first pregnancy, Jaime has been leading a more sedentary lifestyle as she juggles the demands of work and taking care of her child. Recently, Jaime learnt that she is expecting her second child and her doctor advised that it is important to start adopting an active lifestyle for herself and her child. Jaime was diagnosed with Gestational Diabetes Mellitus (GDM) during her first pregnancy and coupled with her current inactive lifestyle, she has an increased risk of it recurring.

Jaime goes for a 30-minute stroll only when she finds the free time between a full day of work and caring for her child. With her doctor's advice, she tries to gradually squeeze in a 15-minute workout during lunch time and attends a weekly prenatal yoga class on the weekends. She hopes to gradually build up her activity by consulting her doctor regularly to keep herself and her child healthy.

Jaime's attempt is commendable. For other mothers who are trying to do the same, here are some simple ways to build up your activity levels:



Work closely with your doctor to come up with an exercise regimen that includes aerobic activities and muscle-strengthening exercises.



Incorporate activities like Pilates, yoga, and resistance band exercises to maintain muscle mass and aid in glucose control.



Try swimming for a low-impact full body workout.



Plan for pool days or going for long strolls at the park with your family as a workout and spend quality time together.

GUIDELINES BY SUB-POPULATION: PERSONS WITH DISABILITIES

UPDATES IN THE SINGAPORE PHYSICAL ACTIVITY GUIDELINES (SPAG): PERSONS WITH DISABILITIES

WHAT'S NEW

Encourage physical activity for persons with disabilities

Safety considerations of physical activity for persons with disabilities



IT IS RECOMMENDED THAT...

Adults with disabilities who are not able to meet the key guidelines should avoid inactivity and engage in regular physical activity according to their abilities.

To participate in physical activities that are adapted to accommodate those with disabilities, for example, engage in basketball, badminton, tennis, and swimming.

Focus on finding and doing activities that you can enjoy, instead of avoiding all activities due to mobility and health concerns.

SAFETY CONSIDERATIONS



Participate in suitable activities that are safe



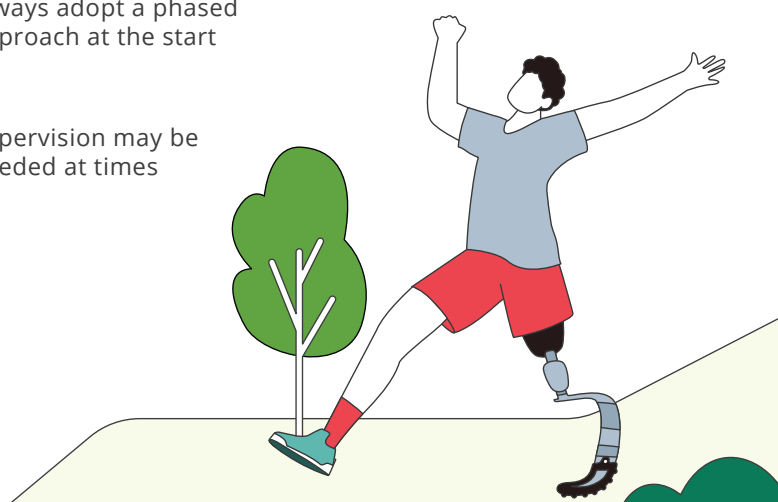
Always adopt a phased approach at the start



Seek doctor's recommendations on suitable physical activities



Supervision may be needed at times



SINGAPORE PHYSICAL ACTIVITY GUIDELINES FOR PERSONS WITH DISABILITIES

Persons with disabilities can achieve important health benefits from physical activity. They should try to meet these recommendations where possible and as able.



MOVE TOGETHER & INSPIRE

RECOMMENDATIONS

GET STRONGER

Strengthen muscles, bones, and joints through activities at least 2 days a week.

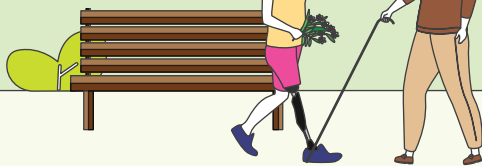
KEEP MOVING

Aim to engage in physical activities every day, including light-intensity activities.

HIT 150 - 300

Aim for at least 150 to 300 minutes of moderate-intensity aerobic physical activity per week.

*Every minute of vigorous-intensity activity can generally be considered as two minutes' worth of moderate-intensity activity.



TIPS



Avoid staying sedentary by spreading out some light-intensity activity throughout the day.



Turn workouts into social events by reaching out to your friends and family to exercise together for extra support and motivation.



Seek doctor's recommendations on suitable physical activities if unsure on how to start.



Take a phased approach if necessary – gradually increasing the complexity and intensity of your activities.



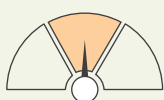
Listen to your body, reduce the intensity of your activities and adapt accordingly to prevent overexertion.



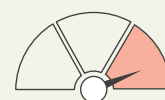
EXERCISE INTENSITY



Light
Can talk in full sentences and sing



Moderate
Can talk in phrases or short sentences but cannot sing



Vigorous
Have difficulty talking

SUMMARY OF EVIDENCE: PERSONS WITH DISABILITIES

DISABILITIES

PHYSICAL FUNCTION:

Physical activity can improve motor symptoms, functional mobility and performance, endurance and velocity of forward and backward movement.

MENTAL HEALTH:

Increasing functional independence and ability helps to increase the confidence and mental health of those with physical disabilities.

COGNITIVE FUNCTION:

Physical activity can have beneficial effects on cognition, working memory, social cognition, and attention/vigilance.



CASE STUDIES: PERSONS WITH DISABILITIES

CASE STUDY #1



JAVEN, 16

Enjoys playing wheelchair basketball despite a spinal cord injury

Javen is an active teenager. On weekday mornings and evenings, he clocks in additional wheel time at the park connectors. He has always been an active boy and knows that he sleeps better after higher levels of activity in the day. Javen also engages in structured leisure-time physical activity once a week in the form of an organised wheelchair basketball game that lasts for 120 minutes.

In addition to the aerobic activity that he is exposed to in his basketball games and daily time spent at the park connector, Javen goes to the ActiveSG Enabling Village once a week to do some upper body strength exercises. Javen has a great social network, and his friends are also very active and inclusive, so he gets other opportunities throughout the week to be active and involved in sporadic bouts of physical activity with his buddies.

Javen has found the right balance of light, moderate- and vigorous-activities incorporated into his weekly routine. For Persons with Disabilities, it is important to:



Combine strength and cardiorespiratory activities



Include some light mobility and flexibility exercises to ensure proper recovery and minimise the risk of injury

CASE STUDY #2



SERENE, 17

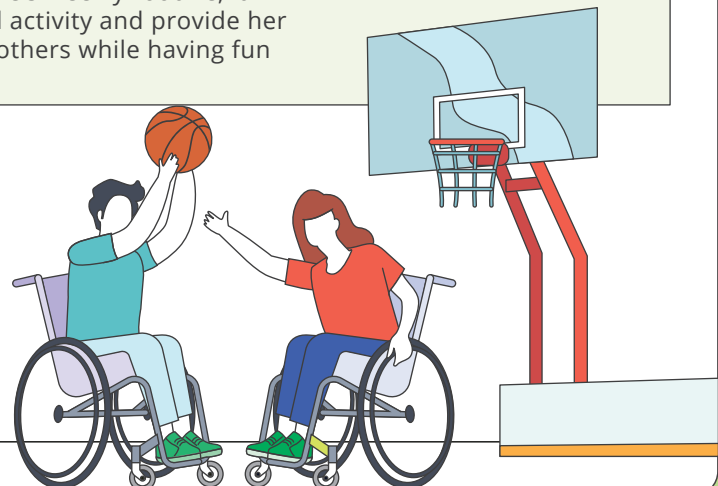
Diagnosed with an intellectual disability and does not have many opportunities for physical activity

Serene is in her final year of school. Her day is structured to include regular physical activity with the support of trained teachers for those with special needs. Serene's parents are concerned that she will not be able to remain active and stay healthy when the school term ends. To help Serene incorporate physical activity into her routines outside the school, they purposefully bring Serene out for a 30-minute light-intensity walk in the park every weekday evening. At home, Serene's mother gets Serene to help with some of the housework. This usually takes 60 minutes on weekends. Serene's mother gets her to play more organised sports and have recently signed her up to try adapted badminton.

Serene and her parents are making a great effort to help Serene stay physically active. Her family should also aim to get Serene to engage in more moderate-intensity activities during her evening walks and when doing housework.



By including sport like adapted badminton into Serene's weekly routine, it will allow her to get the physiological benefits of physical activity and provide her with an opportunity to form social connections with others while having fun

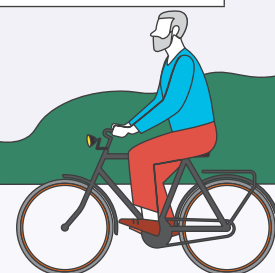
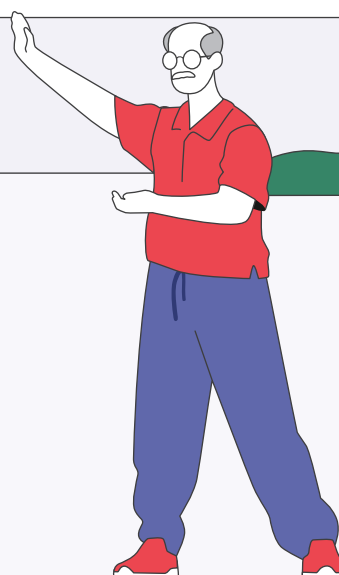
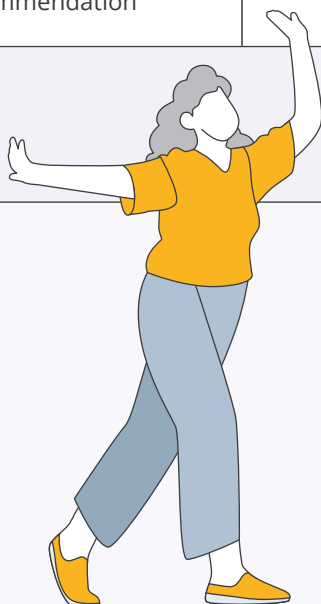


GUIDELINES BY SUBPOPULATION: OLDER ADULTS



UPDATES IN THE SINGAPORE PHYSICAL ACTIVITY GUIDELINES (SPAG) Older Adults (65 YEARS & ABOVE)

Previous (2011)	What's New
Break up sedentary periods of 90+ minutes with 5-10 minutes of physical activity.	Removal of time-specific recommendations.
Minimum bouts of 10 minutes of physical activity per week.	No minimum bouts of physical activity.
Single time targets (e.g. 150 minutes).	Clocking in a target range e.g. 150 to 300 minutes of moderate-intensity aerobic physical activity.
No minimum intensity for muscle-strengthening activity.	Muscle-strengthening activities are recommended to be done at least 2 days a week, at moderate-intensity.
No recommendation on frequency of balance physical activity. No functional training recommendation	Beyond balance training exercises to be done 3 days a week, functional training exercises are also recommended to be done at least 3 days a week.



IT IS RECOMMENDED THAT...

Older adults should limit the amount of time spent sedentary, replacing that with physical activity of any intensity.

Older adults should engage in moderate-intensity physical activity daily, clocking in at least 150 to 300 minutes of moderate-intensity aerobic physical activity throughout the week.

Incorporate exercises aimed at improving or maintaining muscle strength, balance, and flexibility at least three days a week as part of the weekly physical activities.

SINGAPORE PHYSICAL ACTIVITY GUIDELINES FOR OLDER ADULTS (65 YEARS & ABOVE)



Older adults should engage in regular physical activity to improve overall wellbeing, enhance functional capacity, and prevent falls.

MOVE STRONG & BE BALANCED

RECOMMENDATIONS

RETAIN STRENGTH

Engage in muscle-strengthening activities on 2 or more days a week, at moderate or greater intensity, to keep muscles, bones, and joints strong.

Include **multi-component physical activity that emphasizes strength and functional balance at least 3 days of the week** at a moderate-intensity or greater.



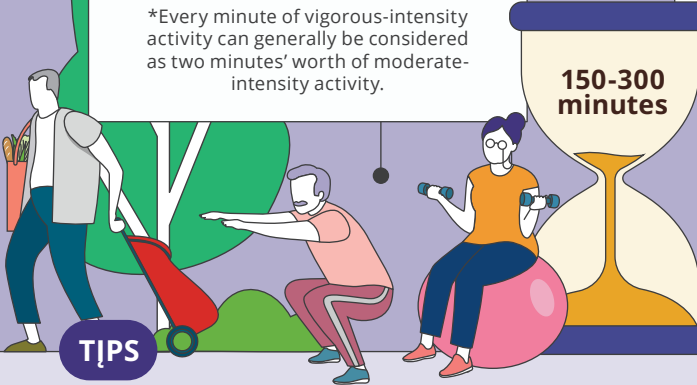
HIT 150 - 300

Aim for at least **150 to 300 minutes of moderate-intensity aerobic physical activity per week.**

*Every minute of vigorous-intensity activity can generally be considered as two minutes' worth of moderate-intensity activity.

KEEP MOVING

Limit the amount of time spent being sedentary, particularly recreational screen time, by **engaging in activity of any intensity.**



150-300 minutes



For adults with chronic conditions (e.g. Type-2 Diabetes and Hypertension), the recommendations and tips are still applicable.

If unsure of how to begin, consult a health professional to determine a suitable exercise regime for you.

TIPS



Incorporate simple strength training exercises such as resistance band exercises when watching your favourite shows.



Engage in varied multi-component physical activity at home or in a structured group setting, which can combine aerobic, muscle-strengthening, and balance training into a session.



Walk or play sports with your family and friends; this is a great way to be active while spending quality time with your loved ones.



Play and try different sports with friends at publicly available sport facilities.



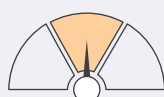
Make use of the outdoor fitness equipment around your community spaces or your built environment as you brisk walk around your neighbourhood.



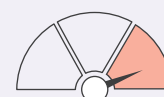
EXERCISE INTENSITY



Light
Can talk in full sentences and sing



Moderate
Can talk in phrases or short sentences but cannot sing



Vigorous
Have difficulty talking

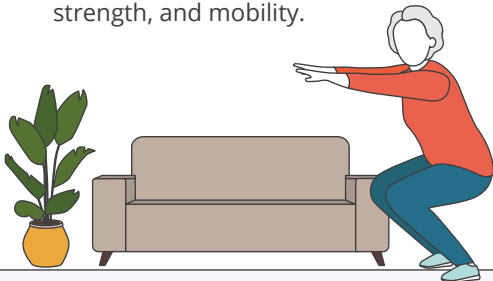
EXAMPLES OF AEROBIC & MUSCLE STRENGTHENING ACTIVITIES BY TYPE

AEROBIC ←	MULTICOMPONENT	→ MUSCLE STRENGTHENING
<p>Brisk Walking</p> <p>Leisure Dancing</p> <p>Jogging</p> <p>Rope Skipping</p>	<p>Cycling</p> <p>Racquet Sports</p> <p>Hiking</p> <p>Swimming</p> <p>Circuit Training</p> <p><i>Circuit training for older adults is usually performed at a light- to moderate-intensity and helps to build muscular endurance and cardiorespiratory fitness.</i></p>	<p>Tai Chi</p> <p>Pilates</p> <p>Weight Training</p>

PHYSICAL ACTIVITY IS IMPORTANT IN TACKLING THE FOLLOWING HEALTH CONSIDERATIONS THAT CAN IMPACT THE FRAILITY OF OLDER ADULTS.

JOINT COMPLICATIONS

Physical activity helps improve physical function following a hip fracture, improve walking and performance-based measures of gait, balance, strength, and mobility.



FUNCTIONAL PERFORMANCE

Regular physical activity is safe and beneficial for those with limitations to improve functional ability and ability to do everyday activities.



OVERWEIGHT & OBESITY

To keep within a healthy weight range, use at least 350 calories per day in physical activity as well as the energy used in everyday tasks.



DIFFERENT ACTIVITIES OF VARYING INTENSITIES AND THEIR IMPACT ON MUSCLE FUNCTION, BALANCE, AND FLEXIBILITY

	INTENSITY	IMPROVEMENT IN MUSCLE FUNCTION	IMPROVEMENT IN BALANCE/FLEXIBILITY
Walking	Light to moderate	✓	
Jogging	Moderate to vigorous	✓	✓
Swimming	Moderate to vigorous	✓✓	
Tai Chi	Light to moderate	✓	✓
Strength Exercises	Moderate to vigorous	✓✓	
Activities of Daily Living	Light	✓	✓

SCALE ✓ LOW ✓✓ MEDIUM

SUMMARY OF EVIDENCE



SEDENTARY BEHAVIOUR



ALL-CAUSE MORTALITY:

Replacing sedentary or inactive behaviours with light-intensity activity reduces the risk of all-cause mortality, cardiovascular disease, and type-2 diabetes.

CARDIOVASCULAR DISEASE:

Prolonged sitting is associated with a higher risk of premature death and death from cardiovascular disease (CVD).

PHYSICAL FUNCTION:

Physical function has a linear relationship with mortality, and those with poor physical function have a higher risk of all-cause mortality, even from mid-life.

BONE HEALTH:

Evidence supports the benefits of being active throughout the day, such as better maintenance of bone health with more light intensity activity spread out through the day.

AEROBIC ACTIVITY



CANCER:

Evidence shows that doing more than 5 hours of moderate-intensity (or 2½ hours of vigorous-intensity) physical activity each week can help prevent and manage some cancers.

COGNITIVE FUNCTION:

Physical activity reduces the risk of cognitive impairment and dementia, and 30 minutes of moderate activity per day almost halves the odds of experiencing depression.

CARDIOVASCULAR DISEASE:

Physical activity causes beneficial short- and long-term autonomic and haemodynamic adaptations, resulting in a lower risk of hypertension, a key risk factor for CVD.

LIFE SATISFACTION:

Positive improvements in life satisfaction were observed for older adults with interventions including 50-minute classes taking place 3 times per week.



VIGOROUS-INTENSITY AND MUSCLE/BONE-STRENGTHENING ACTIVITIES



FALLS:

Exercise may reduce the rate of falls by as much as 23% in older adults, which can significantly reduce the risk of injury.

PHYSICAL FUNCTION & INDEPENDENCE:

Multi-component strength and balance activities, including flexibility, are key to improving physical function, helping to maintain functional independence.

MENTAL HEALTH:

Evidence indicates that resistance exercise interventions have a beneficial effect on mental health, with reductions in depression and anxiety symptoms.

BONE HEALTH:

Muscle-strengthening activities can be useful in managing osteoporosis and osteoarthritis.

CASE STUDIES: OLDER ADULTS

CASE STUDY #1



FATIMAH, 68

Recent retiree who is paying more attention to her health due to her age

Fatimah has been an avid walker for years. Recently retired, Fatimah continues to enjoy her daily 45-minute morning walks at Bishan-Ang Mo Kio Park. She also spends most of her time hanging out with her friends and playing with her grandchildren when they visit over the weekends. While Fatimah feels she is active, she is not as strong anymore. With her age, she is now more cautious when moving about as she worries about falling and injuring herself. She shared her concerns with the doctor whom she visits regularly for her blood pressure and cholesterol checks. Her doctor advised that, while frequent walking is a good start, doing strength exercises is just as important. Fatimah started trying out the various outdoor gym equipment at the park and noticed that she was gradually gaining strength to carry and play with her grandchildren. She also began feeling strong enough to hand carry her groceries when going to the market.

Fatimah has been successful in staying active by taking regular walks and playing with her grandchildren, so keep it up! If you are like Fatimah, you can build on your physical activity by increasing your activity intensity and strengthening your muscles.



Try brisk-walking or cycling instead of walking.



Make use of your park facilities, fitness corners and built environment.



Hand carry your groceries.



Improve your muscle strength and balance through physical activities; e.g. Tai Chi.

Strengthening your body can help you gain confidence and continue to play an active part in your grandchildren's life.

CASE STUDY #2



AH HUAT, 77

Have been leading a sedentary lifestyle as he does not want to put stress on his body at his age

Having retired for a while now, Ah Huat has a lot of spare time which is spent on watching television programmes, listening to radio, or taking naps when he starts feeling drowsy mid-day. As he has been mostly inactive for many years, he is starting to find it challenging with his daily activities. These include getting up from the toilet seat and climbing the stairs. Ah Huat still enjoys his old hobbies, like the occasional swim or joining his friends for fishing. On days when he heads out for an activity, he feels more energetic. However, Ah Huat has concerns about working his body frequently at his age. His arthritis condition causes him joint pains that make moving around increasingly difficult. This has further deterred him from doing the activities that he enjoys. As a result, he prefers to spend most of his time at home doing more relaxing activities that require less movements.

Going out with friends is a great way to maintain common interests and stay active together. If you are like Ah Huat, you should continue exploring different activities that you find enjoyable and suitable. Rather than avoiding exercise completely, why not try the following with friends and stay active together:



Start slow with walking then gradually progress within your capability.



Muscle-strengthening exercises like Tai Chi and stretch band exercises can help alleviate some pain.

By staying active and improving your strength and balance, you not only gain better health, but confidence and the ability to perform daily tasks better. You can then continue doing the things you enjoy!

GLOSSARY OF TERMS

Term	Definition
Adiposity	A condition of being morbidly overweight or obese. Excessive fat accumulation in the body, as measured by BMI, BMI-for-age, BMI z-score, skinfold thickness, body fat mass.
Aerobic physical activity	Activity in which the body's large muscles move in a rhythmic manner for a sustained period. Aerobic activity – also called endurance activity – improves cardiorespiratory fitness. Examples include walking, running, swimming, and bicycling.
Balance training	Static and dynamic exercises that are designed to improve an individual's ability to withstand challenges from postural sway or destabilizing stimuli caused by self-motion, the environment, or other objects.
Body composition	The proportion of fat and fat-free mass in the body. This can be measured as percentage body fat. Body mass index (see below) and waist circumference are proxies for body composition and in most situations, are good indicators of health risk associated with excess adiposity.
Body mass index (BMI)	$\text{Weight (kg)} / \text{height (m)}^2$
Bone-strengthening activity	Physical activity primarily designed to increase the strength of specific sites in bones that make up the skeletal system. Bone-strengthening activities produce an impact or tension force on the bones that promotes bone growth and strength. Running, jumping rope, and lifting weights are examples of bone-strengthening activities.
Cardiometabolic health	The interplay of blood pressure, blood lipids, blood glucose and insulin on health.
Cardiorespiratory fitness (endurance)	A health-related component of physical fitness. The ability of the circulatory and respiratory systems to supply oxygen during sustained physical activity. Usually expressed as measured or estimated maximal oxygen uptake (VO ₂ max).
Cardiovascular disease (CVD)	Cardiovascular diseases (CVDs) are a group of disorders of the heart and blood vessels. They include coronary heart disease, cerebrovascular disease, peripheral arterial disease, deep vein thrombosis and pulmonary embolism among others.
Cognitive function	Cerebral activities, i.e. reasoning, memory, attention, and language that lead to the attainment of information and knowledge. This can also include learning.

GLOSSARY OF TERMS

Term	Definition
Disability	<p>From the International Classification of Functioning, Disability and Health (WHO), an umbrella term for impairments, activity limitations, and participation restrictions, denoting the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors).</p>
Exercise	<p>A subcategory of physical activity that is planned, structured, repetitive, and purposeful in the sense that the improvement or maintenance of one or more components of physical fitness is the objective. "Exercise" and "exercise training" frequently are used interchangeably and generally refer to physical activity performed during leisure time with the primary purpose of improving or maintaining physical fitness, physical performance, or health.</p>
Executive function	<p>Includes constructs such as: working memory, cognitive flexibility (also called flexible thinking) and inhibitory control (which includes self-control)</p>
Fitness	<p>A measure of the body's ability to function efficiently and effectively in work and leisure activities, and includes, for example, physical fitness and cardiorespiratory fitness.</p>
Flexibility	<p>A health- and performance-related component of physical fitness that is the range of motion possible at a joint. Flexibility is specific to each joint and depends on a number of specific variables including, but not limited to, the tightness of specific ligaments and tendons. Flexibility exercises enhance the ability of a joint to move through its full range of motion.</p>
Frailty	<p>Frailer older adults are those who are identified as being frail or have very low physical or cognitive function, perhaps because of chronic disease such as arthritis, dementia, or advanced old age itself.</p>
Functional training	<p>Exercises that can be embedded into everyday tasks to improve lower-body strength, balance, and motor performance. Examples include tandem and one-leg stands, squatting, chair stands, toe raises, and stepping over obstacles.</p>
Interactive activities / play	<p>Activities with a parent or caregiver that do not involve screens as a mode of entertainment. These can include reading, singing, storytelling, colouring, block building, cutting out, puzzles and games.</p> <p style="text-align: center;">See "Play".</p> <p>Interactive play is play with a parent or caregiver where the child and adult/older child interact and engage in play for both cognitive and motor learning.</p>
Light-intensity physical activity	<p>Light-intensity physical activities between 1.5 and 3 METS, i.e. activities with energy cost less than 3 times the energy expenditure at rest for that person.</p> <p>This can include slow walking, bathing, or other incidental activities that do not result in a substantial increase in heart rate or breathing rate.</p>

GLOSSARY OF TERMS

Term	Definition
Major muscle groups	Major muscle groups include the legs, back, abdomen, chest, shoulders and arms.
Metabolic equivalent of task (MET)	The metabolic equivalent of task, or simply metabolic equivalent, is a physiological measure expressing the energy cost (or calories) of physical activities. One MET is the energy equivalent expended by an individual while seated at rest.
Moderate-intensity physical activity	On an absolute scale, moderate-intensity refers to the physical activity that is performed between 3 and less than 6 times the intensity of rest. On a scale relative to an individual's personal capacity, moderate-intensity physical activity is usually 5 or 6 on a scale of 0-10.
Motor Development - Fundamental Movement Skills (FMS)	Development of a child's musculoskeletal system and acquisition of gross motor skills (sometimes referred to as fundamental movement skills FMS), and fine motor skills, including object control.
Muscle-strengthening activity	Physical activity and exercise that increase skeletal muscle strength, power, endurance, and mass (e.g. strength training, resistance training, or muscular strength and endurance exercises).
Multi-component physical activity	Multi-component physical activity is important to improve physical function and decrease the risk of falls or injury from a fall. These activities can be done at home or in a structured group setting. Many studied interventions combine all types of exercise (aerobic, muscle strengthening, and balance training) into a session, and this has been shown to be effective. An example of a multi-component physical activity programme could include walking) aerobic activity), lifting weights (muscle strengthening), and incorporates balance training. Examples of balance training can include walking backwards or sideways or standing on one foot while doing an upper body muscle-strengthening activity, such as bicep curls. Dancing also combines aerobic and balance components.
Non-Communicable Diseases (NCDs)	A disease that is not transmissible directly from one person to another
Physical activity	Any bodily movement produced by skeletal muscles that requires energy expenditure.
Physical inactivity	An insufficient physical activity level to meet present physical activity recommendations.

GLOSSARY OF TERMS

Term	Definition
Play	<p>Play is defined as being for its own sake (without a specific goal), voluntary, enjoyed by participants and imaginative. It can be solitary or social, and with or without objects. Young children acquire and consolidate developmental skills through playful interactions with people and objects.</p>
Postpartum	<p>Postpartum refers to a period after the end of pregnancy. The postpartum period is commonly defined as up to six weeks following the end of pregnancy, with the late postpartum period from six weeks up to one year after the end of pregnancy. For these Guidelines postpartum includes up to one year post delivery.</p>
Psychosocial health	<p>Include mental, emotional, and social dimensions of health.</p>
Recreational screen time	<p>Time spent watching screens (television (TV), computer, mobile devices) for purposes other than those related to education/study or work.</p>
Sedentary behaviour	<p>Any waking behaviour characterized by an energy expenditure of 1.5 METS or lower while sitting, reclining, or lying. Most desk-based office work, driving a car, and watching television are examples of sedentary behaviours; these can also apply to those unable to stand, such as wheelchair users. The guidelines operationalize the definition of sedentary behaviour to include self-reported low movement sitting (leisure time, occupational, and total), television (TV viewing or screen time, and low levels of movement measured by devices that assess movement or posture).</p>
Sport	<p>Sport covers a range of activities performed within a set of rules and undertaken as part of leisure or competition. Sporting activities involve physical activity carried out by teams or individuals and may be supported by an institutional framework, such as a sporting agency.</p>
Vigorous-intensity physical activity	<p>On an absolute scale, vigorous-intensity refers to physical activity that is performed at 6.0 or more METS. On a scale relative to an individual's personal capacity, vigorous-intensity physical activity is usually 7 or 8 on a scale of 0-10. Every minute of vigorous-intensity activity can generally be considered as two minutes worth of moderate-intensity activity.</p>
Tummy time	<p>Time an infant spends lying on their front (in prone position) while awake with unrestricted movement of limbs.</p>

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8	34	Gestational Weight Gain	Du, M., Ouyang, Y., Nie, X., Huang, Y., & Redding, S. R. (2019). Effects of physical exercise during pregnancy on maternal and infant outcomes in overweight and obese pregnant women: A meta-analysis. <i>Birth, 46</i> (2), 211–221.
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8	34	Postpartum Depression	Davenport, M. H., McCurdy, A. P., Mottola, M. F., Skow, R. J., Meah, V. L., Poitras, V. J., Jaramillo Garcia, A., Gray, C. E., Barrowman, N., Riske, L., Sobierajski, F., James, M., Nagpal, T., Marchand, A.-A., Nuspl, M., Slater, L. G., Barakat, R., Adamo, K. B., Davies, G. A., & Ruchat, S.-M. (2018). Impact of prenatal exercise on both prenatal and postnatal anxiety and depressive symptoms: A systematic review and meta-analysis. <i>British Journal of Sports Medicine</i> , 52(21), 1376–1385. https://doi.org/10.1136/bjsports-2018-099697
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8	43	Physical Function	Jadczak, A. D., Makwana, N., Luscombe-Marsh, N., Visvanathan, R., & Schultz, T. J. (2018). Effectiveness of exercise interventions on physical function in community-dwelling frail older people: An umbrella review of systematic reviews. <i>JBI Evidence Synthesis, 16</i> (3), 752–775.
8	43	Bone Health	Onambele-Pearson, G., Wullems, J., Doody, C., Ryan, D., Morse, C., & Degens, H. (2019). Influence of Habitual Physical Behavior—Sleeping, Sedentarism, Physical Activity—On Bone Health in Community-Dwelling Older People. <i>Frontiers in Physiology, 10</i> , 408–408. https://doi.org/10.3389/fphys.2019.00408
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8	43	Cognitive Function	Catalan-Matamoros, D., Gomez-Conesa, A., Stubbs, B., & Vancampfort, D. (2016). Exercise improves depressive symptoms in older adults: An umbrella review of systematic reviews and meta-analyses. <i>Psychiatry Research, 244</i> , 202–209. https://doi.org/10.1016/j.psychres.2016.07.028
8	43	Life Satisfaction	Loprinzi, P. D., Edwards, M. K., Crush, E., Ikuta, T., & Del Arco, A. (2018). Dose-Response Association Between Physical Activity and Cognitive Function in a National Sample of Older Adults. <i>American Journal of Health Promotion, 32</i> (3), 554–560. https://doi.org/10.1177/0890117116689732
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8	43	Mental Health	Gordon, B. R., McDowell, C. P., Hallgren, M., Meyer, J. D., Lyons, M., & Herring, M. P. (2018b). The Effects of Resistance Exercise Training on Depressive Symptoms: A Meta-Analysis of Randomized Controlled Trials 103 Board #1 May 30 9 30 AM - 11 30 AM. <i>Medicine and Science in Sports and Exercise, 50</i> (5S), 5. https://doi.org/10.1249/01.mss.0000535100.03519.6a
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Physical activity improves your physical and mental health. Even small amounts of physical activity are good, and more is better.

For almost everyone, the benefits of physical activity far outweigh any risks. For some individuals, specific advice from a Qualified Exercise Professional (QEP – has post-secondary education in exercise sciences and an advanced certification in the area – see csep.ca/certifications) or health care provider is advisable. This questionnaire is intended for all ages – to help move you along the path to becoming more physically active.

- I am completing this questionnaire for myself.
- I am completing this questionnaire for my child/dependent as parent/guardian.

PREPARE TO BECOME MORE ACTIVE

The following questions will help to ensure that you have a safe physical activity experience. Please answer **YES** or **NO** to each question before you become more physically active. If you are unsure about any question, answer **YES**.

- | YES | NO | |
|-----------------------|-----------------------|---|
| <input type="radio"/> | <input type="radio"/> | 1 Have you experienced ANY of the following (A to F) within the past six months? |
| <input type="radio"/> | <input type="radio"/> | A A diagnosis of/treatment for heart disease or stroke, or pain/discomfort/pressure in your chest during activities of daily living or during physical activity? |
| <input type="radio"/> | <input type="radio"/> | B A diagnosis of/treatment for high blood pressure (BP), or a resting BP of 160/90 mmHg or higher? |
| <input type="radio"/> | <input type="radio"/> | C Dizziness or lightheadedness during physical activity? |
| <input type="radio"/> | <input type="radio"/> | D Shortness of breath at rest? |
| <input type="radio"/> | <input type="radio"/> | E Loss of consciousness/fainting for any reason? |
| <input type="radio"/> | <input type="radio"/> | F Concussion? |
| <input type="radio"/> | <input type="radio"/> | 2 Do you currently have pain or swelling in any part of your body (such as from an injury, acute flare-up of arthritis, or back pain) that affects your ability to be physically active? |
| <input type="radio"/> | <input type="radio"/> | 3 Has a health care provider told you that you should avoid or modify certain types of physical activity? |
| <input type="radio"/> | <input type="radio"/> | 4 Do you have any other medical or physical condition (such as diabetes, cancer, osteoporosis, asthma, spinal cord injury) that may affect your ability to be physically active? |

..... > **NO** to all questions: go to Page 2 – ASSESS YOUR CURRENT PHYSICAL ACTIVITY >

YES to any question: go to Reference Document – ADVICE ON WHAT TO DO IF YOU HAVE A YES RESPONSE ... >>

Use this reference document if you answered **YES** to any question and you have not consulted a health care provider or Qualified Exercise Professional (QEP) about becoming more physically active.

1 Have you experienced ANY of the following (A to F) within the past six months?	
<p>A A diagnosis of/treatment for heart disease or stroke, or pain/discomfort/pressure in your chest during activities of daily living or during physical activity?</p> <p><input type="checkbox"/> YES</p>	<p>Physical activity is likely to be beneficial. If you have been treated for heart disease but have not completed a cardiac rehabilitation program within the past 6 months, consult a doctor – a supervised cardiac rehabilitation program is strongly recommended. If you are resuming physical activity after more than 6 months of inactivity, begin slowly with light- to moderate-intensity physical activity. If you have pain/discomfort/pressure in your chest and it is new for you, talk to a doctor. Describe the symptom and what activities bring it on.</p>
<p>B A diagnosis of/treatment for high blood pressure (BP), or a resting BP of 160/90 mmHg or higher?</p> <p><input type="checkbox"/> YES</p>	<p>Physical activity is likely to be beneficial if you have been diagnosed and treated for high blood pressure (BP). If you are unsure of your resting BP, consult a health care provider or a Qualified Exercise Professional (QEP) to have it measured. If you are taking BP medication and your BP is under good control, regular physical activity is recommended as it may help to lower your BP. Your doctor should be aware of your physical activity level so your medication needs can be monitored. If your BP is 160/90 or higher, you should receive medical clearance and consult a QEP about safe and appropriate physical activity.</p>
<p>C Dizziness or lightheadedness during physical activity</p> <p><input type="checkbox"/> YES</p>	<p>There are several possible reasons for feeling this way and many are not worrisome. Before becoming more active, consult a health care provider to identify reasons and minimize risk. Until then, refrain from increasing the intensity of your physical activity.</p>
<p>D Shortness of breath at rest</p> <p><input type="checkbox"/> YES</p>	<p>If you have asthma and this is relieved with medication, light to moderate physical activity is safe. If your shortness of breath is not relieved with medication, consult a doctor.</p>
<p>E Loss of consciousness/fainting for any reason</p> <p><input type="checkbox"/> YES</p>	<p>Before becoming more active, consult a doctor to identify reasons and minimize risk. Once you are medically cleared, consult a Qualified Exercise Professional (QEP) about types of physical activity suitable for your condition.</p>
<p>F Concussion</p> <p><input type="checkbox"/> YES</p>	<p>A concussion is an injury to the brain that requires time to recover. Increasing physical activity while still experiencing symptoms may worsen your symptoms, lengthen your recovery, and increase your risk for another concussion. A health care provider will let you know when you can start becoming more physically active, and a Qualified Exercise Professional (QEP) can help get you started.</p>

After reading the ADVICE for your YES response, go to Page 2 of the *Get Active Questionnaire – ASSESS YOUR CURRENT PHYSICAL ACTIVITY*

Use this reference document if you answered **YES** to any question and you have not consulted a health care provider or Qualified Exercise Professional (QEP) about becoming more physically active.

1 Have you experienced ANY of the following (A to F) within the past six months?	
<p>A A diagnosis of/treatment for heart disease or stroke, or pain/discomfort/pressure in your chest during activities of daily living or during physical activity?</p> <p><input type="checkbox"/> YES</p>	<p>Physical activity is likely to be beneficial. If you have been treated for heart disease but have not completed a cardiac rehabilitation program within the past 6 months, consult a doctor – a supervised cardiac rehabilitation program is strongly recommended. If you are resuming physical activity after more than 6 months of inactivity, begin slowly with light- to moderate-intensity physical activity. If you have pain/discomfort/pressure in your chest and it is new for you, talk to a doctor. Describe the symptom and what activities bring it on.</p>
<p>B A diagnosis of/treatment for high blood pressure (BP), or a resting BP of 160/90 mmHg or higher?</p> <p><input type="checkbox"/> YES</p>	<p>Physical activity is likely to be beneficial if you have been diagnosed and treated for high blood pressure (BP). If you are unsure of your resting BP, consult a health care provider or a Qualified Exercise Professional (QEP) to have it measured. If you are taking BP medication and your BP is under good control, regular physical activity is recommended as it may help to lower your BP. Your doctor should be aware of your physical activity level so your medication needs can be monitored. If your BP is 160/90 or higher, you should receive medical clearance and consult a QEP about safe and appropriate physical activity.</p>
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<p>E Loss of consciousness/fainting for any reason</p> <p><input type="checkbox"/> YES</p>	<p>Before becoming more active, consult a doctor to identify reasons and minimize risk. Once you are medically cleared, consult a Qualified Exercise Professional (QEP) about types of physical activity suitable for your condition.</p>
<p>F Concussion</p> <p><input type="checkbox"/> YES</p>	<p>A concussion is an injury to the brain that requires time to recover. Increasing physical activity while still experiencing symptoms may worsen your symptoms, lengthen your recovery, and increase your risk for another concussion. A health care provider will let you know when you can start becoming more physically active, and a Qualified Exercise Professional (QEP) can help get you started.</p>

After reading the **ADVICE** for your **YES** response, go to Page 2 of the *Get Active Questionnaire – ASSESS YOUR CURRENT PHYSICAL ACTIVITY*

Use this reference document if you answered **YES** to any question and you have not consulted a health care provider or Qualified Exercise Professional (QEP) about becoming more physically active.

2 Do you currently have pain or swelling in any part of your body (such as from an injury, acute flare-up of arthritis, or back pain) that affects your ability to be physically active?

YES

If this swelling or pain is new, consult a health care provider. Otherwise, keep joints healthy and reduce pain by moving your joints slowly and gently through the entire pain-free range of motion. If you have hip, knee or ankle pain, choose low-impact activities such as swimming or cycling. As the pain subsides, gradually resume your normal physical activities starting at a level lower than before the flare-up. Consult a Qualified Exercise Professional (QEP) in follow-up to help you become more active and prevent or minimize future pain.

3 Has a health care provider told you that you should avoid or modify certain types of physical activity?

YES

Listen to the advice of your health care provider. A Qualified Exercise Professional (QEP) will ask you about any considerations and provide specific advice for physical activity that is safe and that takes your lifestyle and health care provider's advice into account.

4 Do you have any other medical or physical condition (such as diabetes, cancer, osteoporosis, asthma, spinal cord injury) that may affect your ability to be physically active?

YES

Some people may worry if they have a medical or physical condition that physical activity might be unsafe. In fact, regular physical activity can help to manage and improve many conditions. Physical activity can also reduce the risk of complications. A Qualified Exercise Professional (QEP) can help with specific advice for physical activity that is safe and that takes your medical history and lifestyle into account.

After reading the **ADVICE** for your **YES** response, go to Page 2 of the *Get Active Questionnaire – ASSESS YOUR CURRENT PHYSICAL ACTIVITY*

WANT ADDITIONAL INFORMATION ON BECOMING MORE PHYSICALLY ACTIVE?

▶ csep.ca/certifications

CSEP Certified members can help you with your physical activity goals.

▶ csep.ca/guidelines

Canadian Physical Activity Guidelines for all ages.