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*This resource is designed for healthy adults and older adults and should not replace any health and physical activity advice provided by your doctor or health care professionals.*



## Physical activity: Some is better than none, more is better

Being physically active not only helps you look good and feel good, it also allows you to enjoy a healthy, vibrant life. No matter what your age or fitness level is, you can benefit from an active lifestyle.

Physical activity is any activity that makes you move your body. It includes activities such as taking the stairs, mopping the floor, walking to the store, jogging or playing a game like badminton.

According to the Health Promotion Board and the World Health Organization, regular physical activity:

- helps maintain and control weight
- keeps bones, muscles and joints strong
- increases lifespan and quality of life
- reduces stress and anxiety
- improves balance and coordination
- prevents falls
- reduces the risk of high blood pressure, heart disease, diabetes, stroke and certain cancers



## Reasons for not being active



Thirty-nine per cent of Singapore residents are not active at recommended levels.

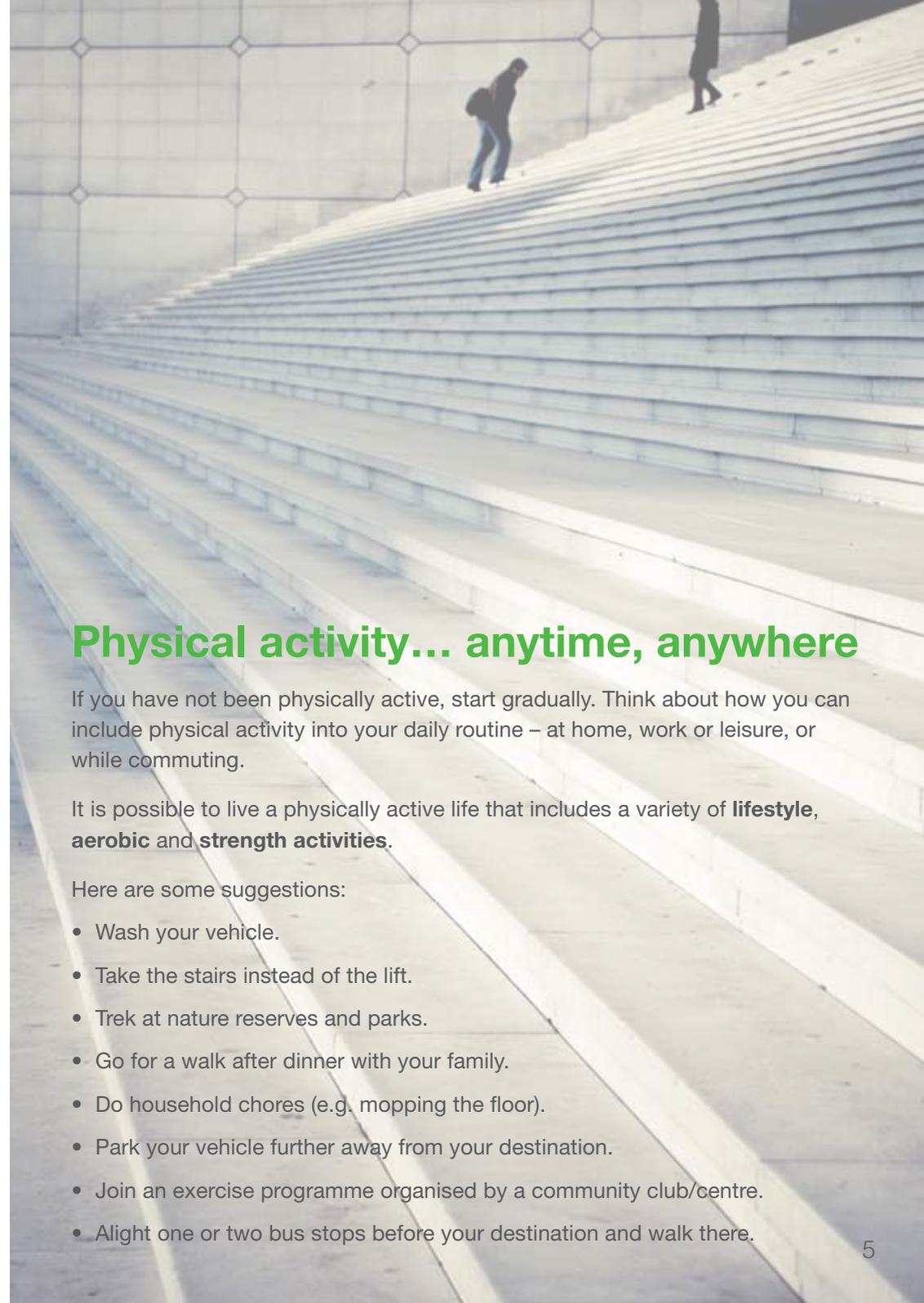
The top three reasons are as follows:

- No time due to work/family commitment
- Too tired
- Too lazy

Source: National Health Survey 2004, MOH

Here are some suggestions on how you can overcome the odds:

Reason	Suggestion
No time due to work/family commitment	<ul style="list-style-type: none"><li>• Try a 10-minute brisk walk to your lunch venue or to/from the MRT station.</li><li>• Exercise while you are watching TV programmes.</li><li>• Set aside time during the weekends to have family fun which includes physical activity.</li></ul>
Too tired	<ul style="list-style-type: none"><li>• Start gradually, focus on lifestyle activity first and progress to doing aerobic activity. Try several 10-minute bouts of aerobic activity each week and gradually increase your time towards the recommended guideline.</li><li>• Consider modifying your eating and sleeping habits.</li></ul>
Too lazy	<ul style="list-style-type: none"><li>• Get a family member, friend or colleague to join you in your preferred lifestyle or aerobic activity.</li><li>• Join an exercise interest group or club where your attendance matters.</li></ul>



## Physical activity... anytime, anywhere

If you have not been physically active, start gradually. Think about how you can include physical activity into your daily routine – at home, work or leisure, or while commuting.

It is possible to live a physically active life that includes a variety of **lifestyle**, **aerobic** and **strength activities**.

Here are some suggestions:

- Wash your vehicle.
- Take the stairs instead of the lift.
- Trek at nature reserves and parks.
- Go for a walk after dinner with your family.
- Do household chores (e.g. mopping the floor).
- Park your vehicle further away from your destination.
- Join an exercise programme organised by a community club/centre.
- Alight one or two bus stops before your destination and walk there.

## The F.I.T.T. principle

The F.I.T.T. principle refers to the Frequency (F), Intensity (I), Time (T) and Type (T) of physical activity. It is a simple way to understand and apply the guidelines for physical activity.

**Frequency (F):** The number of times a physical activity should be done each week

**Intensity (I):** The level of difficulty of a physical activity (e.g. light, moderate, vigorous or hard)

**Time (T):** The duration of a physical activity in minutes

**Type (T):** The kind of physical activity selected

## Amount and types of physical activity

There are basically three types of physical activity:

- Lifestyle activity
- Aerobic activity
- Strength activity

**Lifestyle activity** can easily be built into your daily life. It helps burn calories.

### Lifestyle activity: Anytime, anywhere

**Frequency:** Daily

**Intensity:** Light to moderate

*Light-intensity aerobic activities* cause minimal increases in breathing and heart rate.

*Moderate-intensity aerobic activities* cause a noticeable increase in breathing and heart rate.

**Time:** Intermittent

**Type:**

- 1) Take the stairs regularly at the office, the mall and the MRT station
- 2) Walk to run errands located within your neighbourhood instead of driving or riding a vehicle
- 3) Alight one MRT stop or a few bus stops before your destination or
- 4) Park your vehicle further away from your destination and walk there

Also, break up long periods of inactivity lasting longer than 90 minutes with 5 to 10 minutes of standing, moving around, or doing some physical activity.

*Tip: If your lifestyle activity is performed at moderate-intensity and lasts longer than 10 minutes, it can count towards your recommended amount of aerobic activity.*

**Aerobic activity** refers to an activity in which your large body muscles move in a rhythmic manner for a sustained period of time of at least 10 minutes. Such activities help prevent disease and add more healthy years to your life.

### Aerobic activity: Aim for 150 minutes a week

**Frequency:** Spread throughout the week

**Intensity:** Moderate to vigorous (or a combination)\*

*Moderate-intensity aerobic activities* cause a noticeable increase in breathing and heart rate. During the activity, you should still be able to talk but not have enough breath to sing.

*Vigorous-intensity aerobic activities* cause a large increase in breathing and heart rate. During the activity, you should still be able to say a few words but not be out of breath.

Another way of measuring intensity is to determine the heart rate with a heart rate monitor or by taking the pulse with the help of a wristwatch or timer. Refer to page 8 to find out more.

**Time:** For optimal health benefits, aim to accumulate 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity aerobic activity each week. Some individuals may need to accumulate 250 minutes a week to prevent weight gain.

\* 1 minute of vigorous-intensity aerobic activity = 2 minutes of moderate-intensity aerobic activity  
e.g. 10 minutes of jogging = 20 minutes of brisk walking

**Type:**

- 1) Moderate-intensity activities include brisk walking, dancing, doing low-impact aerobics, leisurely bicycle riding, playing golf, gardening, doing housework, playing a game like table tennis, etc.
- 2) Vigorous-intensity activities include jogging, brisk walking up a hill, doing step aerobics, swimming, playing a game like badminton, etc.



## Moderate-intensity and vigorous-intensity heart rate ranges

Age	Moderate-intensity beats per minute	Vigorous-intensity beats per minute	Moderate-intensity beats per 15 seconds	Vigorous-intensity beats per 15 seconds
19-24	127-151	153-185	32-37	38-46
25-29	124-147	149-179	31-36	37-45
30-34	120-143	145-175	30-35	36-44
35-39	117-139	140-170	29-34	35-43
40-44	114-135	137-166	28-33	34-41
45-49	110-131	133-161	28-32	33-40
50-54	108-128	129-156	27-31	32-39
55-59	104-124	126-152	26-30	31-38
60-64	101-120	122-147	25-29	30-37
65-69	98-116	118-142	24-28	29-36
70-74	95-112	114-138	24-27	28-34
75-79	92-109	110-133	23-27	28-33
80-84	88-105	106-128	22-26	27-32

*Note: The figures in the table are averages, so use them as general guidelines.*

You can determine your heart rate by taking your pulse with the help of a wristwatch or timer. Follow the steps below:

**Step 1:** Locate your age category and recommended heart rate range for moderate- or vigorous-intensity aerobic activity.

**Step 2:** Feel for the pulse on the wrist.



When there is a constant heart beat, start counting the number of beats for 15 seconds. The heart rate should be checked immediately after the activity (as heart rate drops rapidly when the activity stops).

**Step 3:** Multiply the count by 4 to get the heart rate (in beats per minute).

*A note on medications:*

A few types of high blood pressure medicines can lower the maximum heart rate and the target zone rate as well. If you are taking medication for high blood pressure, consult your doctor to find out whether you need to adjust your activity programme.

**Strength activity** refers to an activity that increases skeletal muscle strength, power, endurance, and mass and bone strength (e.g. strength training, resistance training, or muscular strength and endurance exercises). It should involve major muscle groups including the legs, hips, back, abdomen, chest, shoulders and arms.

**Strength activity: Aim for 2 days a week**

**Frequency:** 2 or more days each week

**Intensity:** Moderate to vigorous

During resistance training/weight lifting, you should be able to complete at least 8 repetitions but not more than 12 repetitions per set. A repetition is one complete movement of an activity, like an arm curl or a sit-up.

**Time:** 1 to 3 sets (approximately 20 to 60 minutes)

**Type:** Strength activities include carrying hand-held weights, doing band exercises, using calisthenic exercise machines, dragon boating, rock wall climbing, stair climbing, carrying groceries, and doing certain mind body exercises (MBEs) (e.g. Qigong, Tai Chi, yoga and Pilates) (see page 10).



**Mind Body Exercises** are exercises that combine body movements with mental focus and controlled breathing to improve strength, balance, flexibility, and overall health. Common types of MBEs include some forms of Qigong, Tai Chi, yoga and Pilates.

**Qigong and Tai Chi** are traditional Chinese wellness practices that use a combination of meaningful regulated movements performed in a smooth flowing fashion. These calming practices can help improve flexibility, balance, and gradually build muscle strength.

**Yoga** is an ancient practice from India which entails a system of physical postures, stretching, and breathing techniques that can improve flexibility, balance and muscle strength.

**Pilates** is a body conditioning routine that seeks to strengthen the body's "core" (torso), usually through a series of mat exercises. Another Pilates method uses special exercise machines, available at some health clubs. The practice helps strengthen and tone muscles.

## Keeping your balance

Balance ability may become a concern for some adults as they age. Balance is maintained or improved by regularly following the physical activity guidelines. Some activities adults can do for balance include brisk walking, stationary cycling, resistance training and Tai Chi/Qigong.

Older adults concerned with the risk of falling should follow their doctor's advice for participating in physical activity programmes.



## Getting ready for physical activity

### Put safety first

- Answer the Physical Activity Readiness Questionnaire (PAR-Q) below before you start any physical activity programme.

If you honestly answer 'NO' to all questions you can be reasonably sure that you are at low risk to participate in any exercise programme or event.

If you answer 'YES' to any of the questions below, you are required to be evaluated by your doctor whether you can participate in any exercise programme or event.

- 1) Has anyone in your immediate family (mother, father, sister or brother) had a heart attack or died suddenly of a heart related disorder before age 55 (men) or 65 (women)?
- 2) Has your doctor informed you that you have any of these conditions?
  - Heart condition or disease (also includes any type of heart surgery)
  - Stroke
  - Lung disease (e.g. chronic obstructive pulmonary disease/COPD or asthma)
  - Diabetes
- 3) Do you feel pain or discomfort in your chest when you engage in physical activity?
- 4) In the past 1 year, have you had chest pain when you were NOT engaging in physical activity?
- 5) Do you ever experience dizziness or even lose consciousness?
- 6) Do you have any bone, joint or muscle problem (e.g. back, knee, hip, shoulder or ankle) that could be made worse by participating in exercise?
- 7) Are you taking medication for high blood pressure or a heart condition?
- 8) Are you currently pregnant? (If yes, please speak with your doctor about an appropriate exercise programme.)
- 9) Do you know of any reason why participating in any other physical activity might be harmful to your health?

- Follow your doctor's advice on the volume and types of physical activities that are best for you especially if you have a medical or chronic condition.

## Avoid injury

- Increase the duration and intensity of your physical activity gradually.
- Ensure that each exercise session includes 5 to 10 minutes of light- to moderate-intensity warm-up and cool-down stages. Stretching or MBEs can be included.
- Wear appropriate attire and use safety equipment/protective gear to reduce any risk of injury (e.g. reflective bands, lights, helmets).
- Stop the physical activity immediately if you experience chest discomfort, pain, dizziness or other unusual symptoms.
- Refrain from exercising when you feel unwell or are recovering from an illness.
- Exercise in safe areas and watch out for traffic.



## Eat right

- Avoid any strenuous physical activity for at least 2 hours after a meal.
- Wait for about 20 minutes before eating if you have just completed any vigorous-intensity aerobic activity.
- Bring a small snack along to keep your energy level up if you plan to be continuously active for more than 60 minutes. Good choices are carbohydrate-rich foods, such as bananas, raisins or sport drinks.



## Drink up

- Always ensure you are well-hydrated before, during and after physical activity. Thirst is not a good indicator of hydration status as by the time you feel thirsty, there is probably already a significant loss of fluids.
  - For a short (i.e. less than 60 minutes), light- to moderate-intensity aerobic activity (such as brisk walking), plain water is a good choice of fluid.
  - For physical activities that last longer than 1 hour, you may consider isotonic or sports drinks instead.
- Avoid strong coffee or alcohol to prevent dehydration.
- In general, your urine colour is a good indicator of hydration status. Light-coloured urine indicates adequate hydration while dark urine indicates dehydration.

## Check the weather forecast

- Check the weather forecast\* first if you intend to exercise outdoors.
- Avoid outdoor activities on days with high temperatures and if there are signs of heavy downpour or lightning.
- Avoid exercising during the hottest part of the day, that is, 10:30am–3:30pm.
- Consider wearing a cap or a hat and applying sunscreen to prevent sunburn when doing outdoor activities.
- Wear light, loose-fitting, “breathable” clothing.
- Prevent heat exhaustion and heat stroke by ensuring proper hydration.

## Learn essential skills

- Equip yourself with emergency response skills such as First Aid, Cardio Pulmonary Resuscitation (CPR) and Automated External Defibrillator (AED) certification.



\* Contact the Singapore Meteorological Station at 6542 7788 or log on to [www.nea.gov.sg](http://www.nea.gov.sg) for weather forecast reports.

## Physical activity plan and you

Here is an example of how you can spread your lifestyle, aerobic and strength activities throughout a week:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Take the stairs (L)	Do 30-minute aerobic class at lunch time (M)	Take the stairs (L)	Take the stairs (L)	Swim for 20 minutes (V)	Brisk walk 10 minutes to lunch venue (L/M)	Do household chores (L)
Practise yoga (S)		Stroll in the mall after dinner (L)	Lift weights (S)	Brisk walk 10 minutes after dinner (M)		Jog 15 minutes in the park (V)
Stroll to the store (L)		Brisk walk home for 15 minutes from the MRT station (L/M)			Dance for 30 minutes (M)	Play a sport or a fitness game with family and friends (M/V)

**L:** Lifestyle activity

**M:** Moderate-intensity aerobic activity

**V:** Vigorous-intensity aerobic activity

**S:** Strength activity

## Design your weekly plan

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

You decide what works best for your weekly schedule!

## Keep the physical activity going

Make an active lifestyle your way of life. To keep it going, this is what you can do:

- Explore new activities with your family, friends or colleagues to keep the interest going.
- Pick up new sports or activities to add variety.
- Set realistic short-term goals to help you stay focused and motivated.
- Do not feel miserable when something crops up and breaks your routine. Setbacks are temporary – just get going again as soon as you can.
- Reward yourself when you have achieved your goals.



*Whether you are planning to start an exercise programme or become more physically active than you are now, you have taken the first step towards a healthier lifestyle. You can do a combination of lifestyle, aerobic and strength activities throughout the week. Design your own physical activity weekly plan and start today!*

In Support of Sports Promotion

