



P

Your Exercise Guide

NUP Allied Health – Physiotherapy Services

Contents		
What are the Benefits of Exercise?	 What are the Types of Exercise? Aerobic Exercises Strengthening Exercises Flexibility Exercises 	References

What are the Benefits of Exercise?

Every time you move your body, you are engaging in physical activity.

Exercise is simply planned physical activity that uses up energy for the purpose of helping you maintain or improve your health and fitness.

Everybody needs physical activity to remain healthy. However, if you have any existing medical or health problems, please see your doctor before starting any exercise programme.

Disclaimer

This brochure has been developed for healthy adults and the elderly. Please consult your doctor or physiotherapist on which exercises are suitable for you.

The benefits of exercise are plenty! Exercise can help you:



Lower your risk of heart disease, diabetes and cancer



Improve your heart and lung functions



Reduce your weight



Lower your blood pressure and cholesterol



Reduce your risk of bone joint problems



Release happy hormones to make you feel better and less stressed

Advice / Precautions



If you have any existing medical condition(s), please check with your doctor or physiotherapist before starting any exercise programme.



Don't exercise if you are not feeling well.



Remember to warm up before exercising and cool down after exercising.



Drink enough water before, during and after exercising.



Stop exercising if you feel unwell, giddy

or pain.

Please see your doctor if you still feel unwell after resting.



Wear comfortable shoes and clothes when exercising.

What are the Types of Exercise?



Including a combination of all three in your exercise programme can help you improve your fitness and achieve a healthy weight.

AEROBIC EXERCISE

Aerobic exercise such as jogging, walking, cycling and swimming, are important to help you stay fit. This type of exercise works your heart and





lungs, improving their functions.

You should aim to do moderate intensity aerobic exercise of 150 to 250 minutes a week, to maintain your weight or lose weight slightly. If you wish to lose more weight, aim for more than 250 minutes a week. One way to do this is to exercise five days a week for 30 minutes each day. You can also increase physical activity through your daily routine such as walking to the bus stop or MRT station, or walking out for meals. To increase the intensity, you might like to jog around the park or cycle for half an hour.



If you are overweight or if you are trying to lose more weight, you may need to add 45 minutes to an hour of exercise on weekends. Try walking, cycling or swimming.

Treat it as a fun activity and do it together with family or friends.

Note: If you have not been exercising, you should start with 10 to 20 minutes of exercise each time. Increase your exercise session gradually over a few weeks.

STRENGTHENING EXERCISE

Strengthening exercise helps you build muscle. This is important in any weight loss programme because muscles burn calories even when you are resting. This helps you to lose weight quicker.

Benefits of strengthening exercise:

- Improve muscle strength and prevent muscle loss
- Improve body balance
- Improve blood glucose control for patients with diabetes
- Help you burn calories and lose weight

Strengthening exercises are usually done using:

- machine weights
- free weights (dumbbells)
- resistance bands

Do strengthening exercises 2 to 3 times a week.



Some examples of strengthening exercises are:

DUMBBELL EXERCISES

Shoulder front raises*

- » Hold a weight of 1 or 2 kg in your hand, whichever is comfortable.
- » Raise your hand slowly either to chest level or right above your head (all the way).
- » Lower your hand slowly to the starting position.
- » Do this 10 times.
- » Repeat this exercise 2 to 3 more times.
- » If you do not feel any resistance, try increasing the weight by 1 kg.

BODY WEIGHT EXERCISES

Partial squats*

- » Stand straight. Using both hands, hold on to a firm support so that you do not fall.
- » Squat as though you are sitting. Make sure your knees are behind your toes.
- » Hold for 5 to 10 seconds.
- » Stand up slowly.
- » Do this 10 times.
- » Repeat this exercise 2 to 3 more times.

Heel raises*

- » Stand straight. Using both hands, hold on to a firm support so that you don't fall.
- » Raise your heels and stand on tip-toes.
- » Hold for 5 to 10 seconds.
- » Slowly lower your heels.
- » Do this 10 times.
- » Repeat this exercise 2 to 3 more times.

*These exercises may not be suitable for people at risk of falls. Please check with your doctor, nurse or physiotherapist.





RESISTANCE BAND EXERCISES

You may also use resistance bands to do strengthening exercises.

Resistance bands usually come in different colours, each with a different resistance level.

These exercises are also useful for older adults who may not be able to do aerobic exercises.

Here are some exercises you can do with resistance bands.

Shoulder front raises*

- » Stand with feet apart and use one foot to step on the middle of the band.
- » Use your hands to hold both ends of the band in front of your body.
- » Raise your hands slowly to chest level.
- » Lower your hands slowly to the side of your body.
- » Do this 10 times.
- » Repeat this exercise 2 to 3 more times.

Shoulder side raises*

- » Stand with feet apart and use one foot to step on one end of the band.
- » Use your hand to hold the other end firmly at the side of your body.
- » Raise your hand slowly from the side to chest level.
- » Lower your hand slowly to the side of your body.
- » Do this 10 times.
- » Repeat this exercise 2 to 3 more times.





Shoulder press

- » Sit on a chair with feet apart and use one foot to step on the middle of the band.
- » Hold the ends firmly as shown with elbows bent.
- » Straighten elbows and pull upwards.
- » Slowly bend the elbows and return to start position.
- » Do this 10 times.
- » Repeat this exercise 2 to 3 more times.

Chest press

- » Sit on a chair, loop the band around your back and under the armpits.
- » Hold the ends firmly as shown with elbows bent.
- » Straighten elbows and pull forwards.
- » Slowly bend the elbows and return to start position.
- » Do this 10 times.
- » Repeat this exercise 2 to 3 more times.

Abduction and Side-walk*

- » Make sure the floor doesn't have loose items.
- » Loop the band securely above your knees.
- » Stand near a wall and put your hand on it for safety and support.
- » Walking sideways, take 5 steps to the right, then 5 steps to the left.
- » Do this 5 times.
- » Repeat this exercise 2 to 3 more times.







Hip extension*

- » Loop the band securely above your ankles.
- » Stand near a wall and put your hand on it for safety and support.
- » Extend your leg backwards as shown with knee straight.
- » Do this 10 times on each leg.
- » Repeat this exercise 2 to 3 more times.

*Please note that these exercises are not suitable for people at risk of falls. Please check with your doctor, nurse or physiotherapist.

FLEXIBILITY EXERCISE

This type of exercise improves your flexibility and reduces muscle tightness. Examples of flexibility exercises are stretches (refer below for stretching guide).

These stretches loosens tight muscles and improves flexibility of your joints. Do flexibility exercises 2 to 3 times a week.

Here are some flexibility exercises you can try:

Neck side flexion stretch

- » Tilt your head towards one shoulder until you feel the stretch on the opposite side of the neck.
- » Use your hand to gently pull your head further to the side.
- » Hold for about 10 to 20 seconds. Repeat on the other side.
- » Repeat 3 to 5 times.

Arm across chest stretch

- » Push your arm over to the opposite shoulder. Gently press on your elbow with the other arm.
- » Hold for about 10 to 20 seconds. Repeat with the other arm.





» Repeat 3 to 5 times.

Wrist extensor stretch

- » Place your forearm on a table with your hand over the edge and palm facing down as shown in picture.
- » Let your hand drop down and gently hold it there with your other hand.
- » Hold for about 10 to 20 seconds. Repeat with the other hand.
- » Repeat 3 to 5 times.

Knee to chest stretch

- » Lie on your back. Bend your knees and keep your feet on the floor.
- » Lift your knees towards your chest.
- » Place your hands behind both knees and draw them towards your chest.
- » Hold for 10 to 20 seconds.
- » Repeat 3 to 5 times.

Buttock stretch

- » Sit on a chair and place your foot on the opposite knee.
- » Gently push your knee downwards.
- » Hold for about 10 to 20 seconds. Repeat with the other leg.
- » Repeat 3 to 5 times.







Hamstring stretch

- » Stand up and place the leg that you want to stretch on a footstool or a step.
- » Flex your ankle and push your heel against the footstool while keeping your knee straight.
- » Bend your upper body forward while keeping your back straight.
- » You should feel the stretch behind your knee and thigh.
- » Hold for about 10 to 20 seconds. Repeat with the other leg.
- » Repeat 3 to 5 times.

Calf stretch

- » In a standing position, place the leg you want to stretch straight behind you and the other leg bent in front of you.
- » Hold on to the wall or a stable chair for support.
- » Lean your body forward until you feel the stretch in the calf of your straight leg.
- » Hold for about 10 to 20 seconds, and then relax.
- » Repeat with the other leg.
- » Repeat 3 to 5 times.

References:

3. Yu Y, Lv Y, Yao B, Duan L, Zhang X, et al. (2018) A novel prescription pedometer-assisted walking intervention and weight management for Chinese occupational population. PLOS ONE 13(1): e0190848. https://doi.org/10.1371/journal.pone.0190848 (Accessed 27/12/2019)

4. LS Pescatello, R Arena, D Riebe, Thompson, PD. (Eds.) ACSM's Guidelines for Exercise Testing and Prescription 9th Ed. 2014 Wolters Kluwer/Lippincott Williams & Wilkins, Philadelphia, PA





^{1.} RA Sloan, M Chia, D O'Muircheartaigh, A Gorny, C Yeo, A Ong, BW Lim, KL Tong, ML Wong, MF Chan, MT Lim, P Tan, NH Ismail, L Choo, G Poon, R Laukkanen, S Sawada, I-M Lee and SN Blair. National Physical Activity Guidelines: Professional guide. Health Promotion Board 2011: 1-26

^{2.} Miller et al. (2016). The Functional outcomes of exercise training following a very low energy diet for severely obese women: study protocol for a randomised controlled trial. 17:125. doi:10.1186/s13063-016-1232-5. (Accessed 27/12/2019)

National University Polyclinics

nup.com.sg

