



National Healthcare Group
POLYCLINICS

Exercise

Brought to you by Physiotherapy Services, Clinical Services and Nursing Services



CONTENTS

- 02 Exercise and Its Benefits
- 04 Types of Exercises
- 05 Aerobic Exercises
- 06 Easy Ways to Exercise
- 07 Strengthening Exercises
- 08 Resistance Exercises
- 09 Resistance Band Exercises
- 12 References



Exercise and Its Benefits

Physical activity is any activity that makes you move your body.

Exercise is a type of physical activity that is planned and makes you use up energy to maintain or improve your health and fitness.



Anyone can take part in physical activity. However, if you have any medical or health problems, please see your doctor before taking part in any form of exercise.

Exercise can help to



Reduce your weight



Reduce your risk of heart disease, diabetes and cancer



Reduce your blood pressure and cholesterol



Improve your heart and lung functions



Reduce your risk of bone joint disorders

Disclaimer

This brochure has been developed for healthy adults and the elderly. Please discuss with your doctor, nurse or physiotherapist on suitable exercises for you. The brochure complements other health education materials on exercise produced by other healthcare institutions.

Copyright

Permission to reproduce any part of the brochure is required. No part of the material should be rewritten, modified and used for any commercial purpose without written permission. If excerpts are used with permission, the source of information should be credited to National Healthcare Group Polyclinics.



Advice / Precautions

- If you are on follow up for any medical condition(s), please obtain advice from your doctor, nurse or physiotherapist before starting any exercise programme.
- Do not exercise when you feel unwell.
- Wear comfortable / appropriate foot wear and clothes for the exercise.
- Do warm up exercises before and cool down exercises after the main exercise.
- Drink enough water before, during and after exercise.
- Exercise in a cool and safe environment. Do not exercise outdoors when the weather is hot.
- Stop exercising if you feel unwell, giddy, or if you are in pain.
- Please see your doctor if you still feel unwell after resting.

Types of Exercises

There are three types of exercises:

1: Aerobic exercise

This type of exercise maintains or improves heart and lung function. Examples of aerobic exercises are running, walking, cycling and swimming.

2: Strengthening exercise

This type of exercise helps to improve muscle strength. Muscles burn calories even when you are resting. Strengthening exercises make use of resistance bands, free weights (dumb-bells) or machine weights.

3: Calisthenics exercise

This type of exercise uses your body weight to improve strength and flexibility. Examples of calisthenics exercises are Yoga, Pilates and Tai Chi.

A combination of these exercises at moderate intensity can help a person to lose weight.





Aerobic Exercises

Moderate intensity aerobic activities, such as walking, can help with weight loss.

| Intensity | Level of Activity |
|-------------------------|--|
| Low | Able to whistle and sing while doing the activity |
| Moderate (aim for this) | Able to talk but not sing while doing the activity |
| High | Pants while doing the activity |

Each week, moderate intensity aerobic exercise should be carried out for a total of :

- 150 to 250 minutes to prevent weight gain and for mild to moderate weight loss
- More than 250 minutes for greater weight loss.

For most people, exercising 30 minutes a day for five days a week is enough. You can do this by walking to bus-stops or MRT stations or walking around at work during the day.

However, if you are overweight, you may need to add another 45 to 100 minutes of exercise through walking, cycling, swimming or other aerobic exercises on weekends.

People who seldom exercise need to start with 10 to 20 minutes of exercise each time, before slowly increasing the session to 30 minutes or more over a few weeks.

For patients with knee problems, swimming or cycling will be more suitable.

Easy Ways to Exercise

Walking can also be included into daily activities such as going for lunch or dinner, window shopping and strolling at the park.

Walk 30 minutes to the local hawker / coffee shop

Have a healthy meal

Walk home for another 30 minutes

Associate walking with other pleasant experiences such as enjoying the scenery or spending time bonding with family members.



Strengthening Exercises

- 1 One set of exercise below refers to repeating the exercise 10 times (i.e. 10 repetitions).
- 2 Do 2 to 3 sets of these exercises each time.
- 3 You are encouraged to do this 2 to 3 days per week.

*These exercises may not be suitable for people prone to falls.

Please obtain advice from your doctor, nurse or physiotherapist.



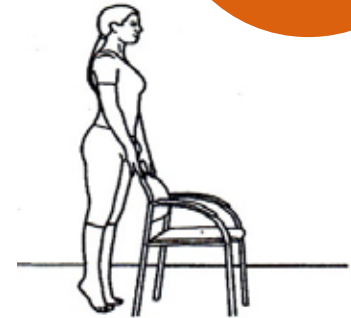
Shoulder front raises

1. Hold a comfortable weight of 1 to 2 kg in your hand.
2. Raise your hand slowly either to chest level or full arm range (all the way).
3. Lower your hand slowly to the starting position.
4. Repeat 10 times.
5. If the weight is too light, increase the weight by 1 kg.



Partial squats*

1. Stand straight with both hands holding on to a firm support (to avoid falling).
2. Squat as though you are sitting.
3. Hold for 5 to 10 seconds.
4. Stand up slowly.
5. Repeat 10 times.



Heel raises*

1. Stand straight with both hands holding on to a firm support (to avoid falling).
2. Raise your heels (stand on tip-toes).
3. Hold for 5 to 10 seconds.
4. Slowly lower your heels.
5. Repeat 10 times.

Resistance Exercises

Resistance exercises:

- 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
- Can be used by older adults or patients with stroke who are unable to do aerobic exercises.

One way to do resistance exercises is to use resistance bands. The bands come in different colours. Each colour has a different resistance level.

Do two to three sets of the different exercises each time. In each set, repeat the exercise 10 times (i.e. 10 repetitions). You are encouraged to do resistance exercises two to three days per week.

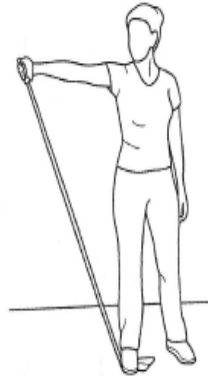


Resistance Band Exercises



Shoulder front raises

1. Step on one end of the band with feet apart.
2. Hold both ends of the band in front of your body.
3. Raise your hand slowly from the front to chest level.
4. Lower your hand slowly to the side of body.
5. Repeat 10 times.

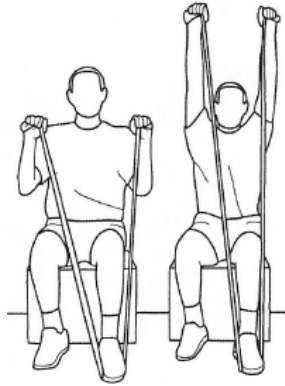


Shoulder side raises

1. Step on one end of the band with feet apart.
2. Hold the other end firmly around your palm at the side of your body.
3. Raise your hand slowly from the side to your chest level.
4. Lower your hand slowly to the side of body.
5. Repeat 10 times.

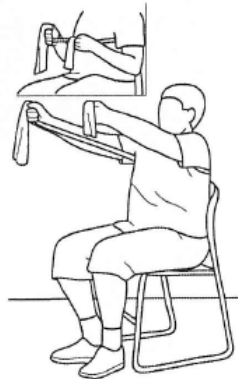
Resistance Band Exercises

These chair exercises are suitable for elderly/ stroke patients who are chair-bound.



Shoulder press

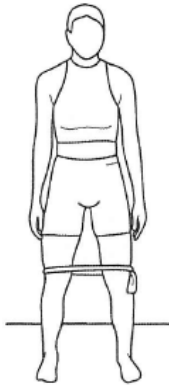
1. Step on one end of the band and with feet apart.
2. Hold the ends firmly as shown with elbows bent.
3. Straighten elbows upward fully.
4. Slowly bend the elbows and return to start position.
5. Repeat 10 times.



Chest press

1. Loop the band around your back and under the armpit.
2. Hold the ends firmly as shown with elbows bent.
3. Straighten elbows forward fully.
4. Slowly bend the elbows and return to start position.
5. Repeat 10 times.

Resistance Band Exercises



Abduction and Side-walk

1. Clear floor of loose items.
2. Loop band securely above knees.
3. Stand near a wall for safety and support with hands.
4. Walk sideways – take 5 steps to the right, then take 5 steps to the left.
5. Repeat this exercise 5 times.



Hip extension

1. Loop band securely above ankles.
2. Stand near a wall for safety and support with hands.
3. Extend leg backwards as shown with knee straight.
4. Repeat 10 times on each leg.

These exercises are not suitable for people prone to falls e.g. elderly persons, people with stroke. Please obtain advice from your doctor, nurse or physiotherapist.

References

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. Joslin Diabetes Center. Diabetes and Exercise.
<http://www.joslin.org/info/diabetes-and-exercise.html>
(Accessed on 16 Oct 2015.)
3. Mikael Fogelholm. Walking for the Management of Obesity.
The UKK Institute for Health Promotion Research, Tampere, Finland
Disease Management Health Outcomes 2005; 13 (1): 9–18
4. CT Miller, SF Fraser, I Levinger, NE Straznicky, JB Dixon, J Reynolds, SE Selig.
The Effects of Exercise Training in Addition to Energy Restriction on Functional Capacities and Body Composition in Obese Adults during Weight Loss: A Systematic Review.
PLoS One. 2013; 8(11): e81692. (doi: 10.1371/journal.pone.0081692).
(Accessed on 16 Oct 2015.)
5. 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