



HOME EXERCISE PROGRAM FOR CARDIAC PATIENTS



Lilavati Hospital and Research Centre

More than Healthcare, Human Care

NABH Accredited Healthcare Provider

What is Cardiac rehabilitation and its benefits?

Cardiac rehabilitation is for the people who have undergone CABG, Valvular surgeries, Myocardial Infarction, Angioplasty and all other cardiac operations. The goal is to maintain or restore physical fitness, by speeding up the recovery and reducing the risk of further cardiac events.

Benefits

- ▶ It improves the pumping action of the heart.
- ▶ It improves the endurance and fitness of an individual.
- ▶ It enhances blood circulation and oxygenation and increases the blood supply to all parts of the body.
- ▶ It promotes and maintains the blood pressure, sugar level, cholesterol levels and reduces

Safety Measures to Follow Post-Operation

INCISION CARE

- ▶ Tingling or muscular ache in and around the incision are common. This will subside in a few days to weeks.
- ▶ You may experience numbness, soreness on the incision site and surgical area.
- ▶ The chest bone (sternum) has been cut apart; as a result, a "popping", "clicking" movement may be noticed during movements. This will abate as the healing progresses.
- ▶ Swelling or redness under the incision or the leg. You may have some experience of numbness over fingers.
- ▶ Usually your surgeon will give guidance on when you can do your daily activities.
- ▶ Contact your doctor immediately if you see:

BATHING

- ▶ Ask your doctor about when to start bathing.
- ▶ Avoid hot water, scrubbing the incision or standing for long time.
- ▶ Initially, if required, take some assistance and sit on the chair. Keep the bucket at your level so that you don't have to bend to take water. Preferably use a shower.
- ▶ Keep sutures dry.

Lifting Restrictions

- ▶ Do not lift anything heavier than 1-2 kg for 6 weeks. Heavy lifting can cause the bone in the chest to separate and prevent it from healing.
- ▶ If the weight is not very heavy then lift with both hands.

Forward Bending

- ▶ It has to be avoided for the first 6 weeks, as your sternal bone is still healing.
- ▶ It takes about 6 weeks to form soft bone and next 6 weeks for mature bone to form.

Household Activities

- ▶ You should not resume full household activities until 4-6 weeks.
- ▶ Avoid activities like opening tight jars, washing or pulling heavy furniture or suitcase and trying to open stuck windows.

Stair Climbing

- ▶ You can climb stairs as instructed by the physiotherapist
- ▶ It required to climb the stairs do so gradually from 1st floor to 2nd floor. Take rest in between climbing if you get tired or breathless.

Travelling

- ▶ Avoid travelling by scooter & auto rickshaws till complete recovery occurs.
- ▶ If required travel by taxi / private car / train / bus.
- ▶ Do not drive yourself. You may start driving after 8 weeks of surgery. Consult your doctor before you start driving.
- ▶ While sitting in the car, keep a pillow to support your chest region, if seat belt is present please use it.

Squatting

- ▶ Avoid squatting (use a stool)
- ▶ Do not work in squatting position or sitting on heels for longer time
- ▶ Squatting may put strain on the heart and sternal bone

Sitting

- ▶ Do not sit with feet dangling for a longer period of time as it may cause swelling in the feet.

Emotions

- ▶ After surgery, it is normal to be depressed / excited. Some may have bad dreams, loss of memory, irritable mood, and loss of concentration.
- ▶ These emotions will gradually change in 4-6 weeks. If this is troubling you a lot, you may consult your doctor.

Valsalva Manoeuvre

- ▶ You may have problems of constipation. If it is bothering you, then you may consult your doctor and if required, H_2O may advise medication for it.
- ▶ Do not strain or hold your breath while passing stools.

Sleep

- ▶ You may have altered sleep pattern due to mood alternations. Avoid sleeping during day time.
- ▶ Sleep for at least 8-10 hours in the night so that your body gets enough rest.

Home Instructions

- ▶ Do not exercise immediately after meals. Wait for at least half an hour after a snack and up to an hour and a half after a large meal.
- ▶ Taking medications that have been prescribed by your doctor is extremely important for your recovery.
- ▶ Perform warm-up and cool-down exercise.
- ▶ While exercising, if any symptoms like giddiness, chest pain, excessive sweating, palpitations arise then stop exercise immediately and take rest. If symptoms persist even after taking rest, then consult the physician immediately.

Exercise Program

Breathing exercise

Diaphragmatic/Deep breathing exercise:

Position: Sit upright with back supported. Breathe in deeply through your nose, hold 2-3.0 repetitions, then blow out slowly through your mouth in a relaxed way. 7-10 repetitions, 3 times a day.



DIAPHRAGMATIC BREATHING EXERCISE

Lateral expansion exercise

Position: Sit upright with back supported. Place your hands on the side of your chest. Breathe in deeply through nose, hold for 2-3 sec expanding your chest and then blow out slowly through your mouth in a relaxed way. 7-10 repetitions, 3 times a day.

Incentive Spirometry:

Position: Sit upright. Place the mouth piece in your mouth. Slowly and deeply breathe in through your mouth, raising the ball up. Hold for 3-5 counts then remove the mouthpiece and blow out through mouth. 7-10 repetitions, 2-3 times a day.

Progression: range of spiro is from 200 cc - 1200 cc. Train to lift the ball and hold it at least 3-5 counts up to at least 5 counts. Progress to next level only if you can hold the ball at next level.

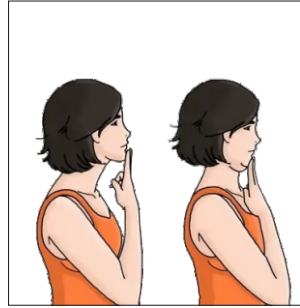


The exercise program will start with

Warm Up

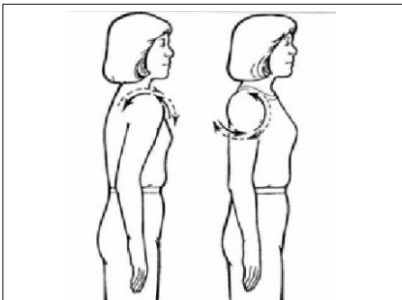
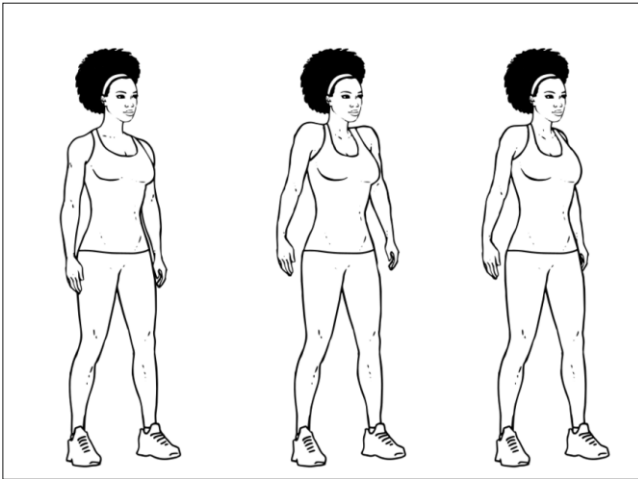
15 minutes. It includes:

Chin tucks



Sitting in a relaxed position with your back erect, move your head straight backwards as far as possible. Hold this position for 3 counts and then relax.

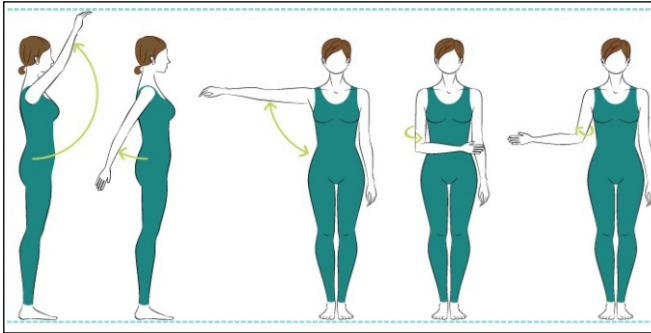
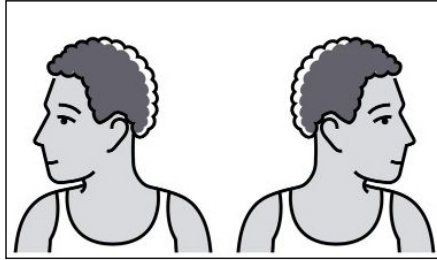
Shoulder shrugs and circles



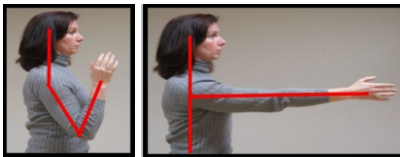
1. Neck sideways



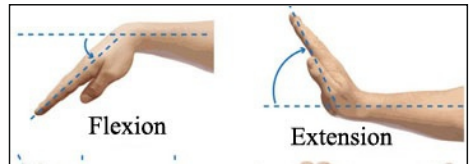
2. Neck rotation



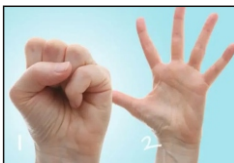
3. Shoulder up and down in vertical and horizontal plane



4. Elbow bending and straightening



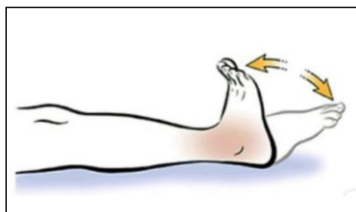
5. Wrist-circle the wrist in clockwise and anticlockwise direction and wrist flexion and extension



6. Fingers move



7. Hip flexion in sitting



8. Ankle Pumps

Posture awareness

After Surgery you must try maintaining an upright posture while sitting, standing, walking etc.

This will prevent pain & stiffness in neck, shoulder & back.

AEROBIC EXERCISE PROGRAM

- ▶ Aerobic exercise is the type of exercise recommended to strengthen the cardio pulmonary system
- ▶ Walking is an excellent form of aerobic exercise.
- ▶ Alternate periods of activity with rest to minimize fatigue.
- ▶ Stop and rest if experiencing extreme fatigue, excessive sweating, shortness of breath,
- ▶ light-headedness, nausea, or a pounding chest (Palpitations / Breathlessness).
- ▶ The rate of perceived exertion (R.P.E) also aids you in determining how hard your heart is working. Choose a number below that best describes how the exercise feels to you. Be sure to consider your overall sensations and feelings of physical stress, effort and fatigue.
- ▶ It is normal to feel pleasantly tired when first beginning an exercise program. Mild muscle fatigue or soreness may occur due to unaccustomed exercise. These minor complaints should cease as you progress through the program.
- ▶ Exercise programme is custom made as per need of patients.
- ▶ Total walking time = 15-30 min/day based on RPE

RPE SCALE

0 – nothing at all
0.5 – very, very weak
1 – very weak
2 – weak
3 – moderate

4 – somewhat strong
5 – strong

7 – very strong
10 – very, very strong

A Follow up is required for
Rehabilitation Programme after suture removal.
kindly contact physiotherapy Department on the following
numbers for prior appointment



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