



Movement Recommendations and Precautions After Thoracic Surgery with Sternal Incision

To help you live a healthy, active life

Your healthcare providers advise you to exercise regularly as part of your recovery. Talk with your physical therapist or surgery care team about the details of your exercise program.

This handout will help guide you while you recover after surgery. It explains the recommended activity and exercise as you recover, and how to increase your activities safely.



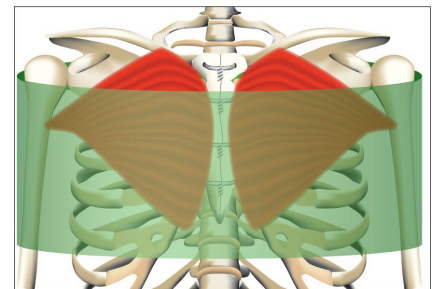
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Sternal Precautions and Activity Recommendations After Surgery

“Keep Your Move in the Tube” is a phrase to help you minimize the stress on your sternum (breastbone) while it heals after surgery and allows you to use your arms.

The goal is to **keep your upper arms close to your body** with load-bearing movement. You can move your arms outside the tube with non-load-bearing movements. Your therapists will help you modify activities specifically for you. Pictures of common activities such as getting out of your bed, standing up from a chair, and reaching overhead are below.

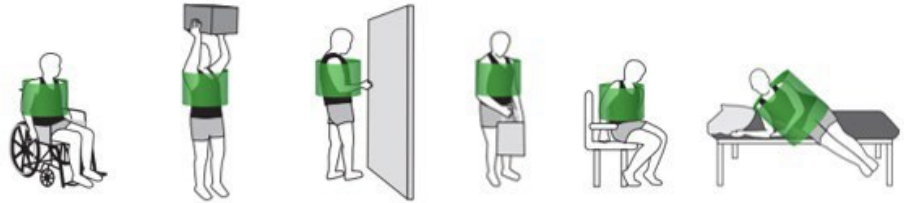
When performing tasks that require lifting, pushing, or pulling, use both arms at the same time and keep them **“in the tube.”** You should ease into these activities. There are no restrictions to the weight you may lift. Pay attention to your body. Pain is a signal to stop or change the activity. We expect soreness but do not expect a sudden, sharp increase in pain.



The “tube” is the area shown in green around your upper arms, sternum, and the attached muscles.

Movements in the Tube (to do):

With each movement, keep both arms close to the body (in the tube). This movement avoids stretching across the chest and using any chest muscle in a way that would put stress on your sternum.



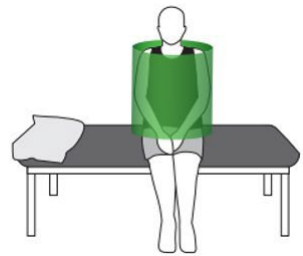
Movements out of the Tube (to avoid):



With each movement, one or both arms are further from the body (out of the tube). This either causes a stretch across the chest and/or chest muscle use that stresses the sternum.

Daily Activities “In the Tube”

Getting In and Out of Bed While Staying “In the Tube”



Notice that the upper arms stay close to the body in all movements, and both arms are being used.

- Bend your knees and roll onto your side.
- Move your feet off the bed. Pull your feet against the edge of the bed.
- Use **both of your arms** to push up into sitting. Keep your upper arms close to your body.
- Sit for a few minutes before you stand up.

Standing up from a bed, chair, or toilet

“In the Tube”



“Out of the Tube”



- Scoot to the edge of the surface you are sitting on.
- Keep **both of your arms at your sides** and use them to help support yourself when standing up. Keep your upper arms close to your body when pushing.
- When sitting down, avoid reaching behind to lower yourself into a chair.

Toileting

- When reaching behind your back for hygiene and/or pulling up pants, reach back with one arm at a time. Keep your upper arm close to your body for comfort.
- A bidet is another option for cleaning yourself more thoroughly.
- Your OT (occupational therapist) may recommend the use of a toilet aid and will show you how to use it.

Bathing

- Use your 'Move in the Tube' precautions to reach your upper and lower body when showering. When showering/drying, it will be more comfortable to reach behind your back one at a time.
- Do not take a bath or soak until your provider says it is OK. This includes swimming or sitting in a hot tub or sauna.
- Consider using a shower chair to help save your energy and prevent falls.
- Wash your incision gently with a mild, unscented soap daily. Do not scrub your wound.
- Do **not** apply creams, ointments, lotions, or powders to your incision.
- Your OT may recommend the use of a handheld shower hose, non-slip bathmat, or a long-handled sponge/brush.

Dressing

- You can wear any style of shirt that feels comfortable. When putting on a t-shirt, button-down shirt, or jacket, it will be more comfortable to keep your upper arm close to your body.
- Sit down when getting dressed to save energy and reduce your risk of falling.
- Your OT may recommend long-handled adaptive equipment such as reachers, sock aids, or long shoehorns. Elastic laces may also make dressing easier.

Surgical bras / chest supports

- Your team may recommend you wear a surgical bra/chest support after your surgery. These types of support can help your wound heal by preventing the downward or sideways pull of your chest on the incision.
- Underwire bras are not recommended as they can put pressure on your wound.

Other activities

The following are guidelines for completing tasks such as grocery shopping, housework, cleaning, chores, yard work, childcare, leisure/hobbies, etc.

- When reaching overhead to retrieve items from a cabinet, high shelf, or closet, **use both arms** and keep your arms close to your body.

“In the Tube”:



“Out of the Tube”:



- When holding, carrying, or transporting items, **use both hands** to hold the item and keep your arms close to your body.

“In the Tube”:



“Out of the Tube”:



- When reaching to push or pull an object, such as opening a door, **use both hands** and keep your arm close to your body.

“In the Tube”:

“Out of the Tube”:



- Do **not** drive any vehicles or operate power tools until your provider gives you permission. On long drives, stop every hour to get out and take a brief walk.

Sexual Activity

- You may resume sexual activity as desired. Use pacing strategies to avoid over-exerting yourself. Use “move in the tube” guidelines with positioning.

Energy Conservation

- Build in rests between tiring activities. For example, take a shower in the morning and schedule appointments in the afternoon.
- Think of your energy like a charge on your cell phone. You have only so much to use before you need to charge it. If you use too much of your charge at once, you will need to stop and “plug in” during the day. Pace yourself.
- You may have good days and more challenging days. Give yourself permission to ask for help.
- After major surgery, it is normal to feel tired, frustrated, or even depressed. Some people cannot think as clearly as usual. Talk with your care provider if these issues do not go away.

Your Postoperative Exercise/Activity Program

While you are in the hospital

Your care team will prescribe and exercise, breathing, and walking program for you to start while you are in the hospital. It is important that you walk with the staff at least 3 to 4 times every day.

Activity will help:

- Your digestive, *respiratory* (breathing), and *circulatory* (blood vessel) systems recover from your procedure. This will help you:
 - Stabilize your blood pressure and reduce dizziness
 - Stop using extra oxygen
 - Improve your strength, balance, and energy
 - Improve your mood and help you sleep better at night
 - Ease constipation and nausea

Activity and Exercise Recommendations When You Return Home

Continue the exercise, breathing, and walking program that your care team taught you while in the hospital. Your goal is to **walk at least 30-40 minutes every day**, as tolerated, after leaving the hospital. To accomplish this:

- Take many short walks throughout the day. Start by walking three times daily, for at least 5 to 10 minutes each time. Every few days, work to increase the total time you walk by 3-5 minutes until you reach or surpass your goal of walking 30-40 minutes daily.
- Warm up and cool down for 5 minutes before and after with gentle stretching (while maintaining your 'Move in the Tube' precautions) or walking at a slower pace.
- Remember to add in the time for your return trip. Do not walk until you are overly tired or excessively fatigued.
- Exercise at a moderate level of effort (3 to 5 on a scale of 0 to 10)
- Wear comfortable clothing during activity/exercise
- Wait for 30-60 minutes after eating before exercising
- It is okay to walk on a treadmill at a comfortable speed
- It is okay to climb stairs or hills at a slow pace, taking breaks when needed. Maintain your 'Move in the Tube' precautions when stair climbing.

For at least 2 months after surgery:

- Do **not** run, walk, or bike vigorously.
- Do **not** play sports like tennis, golf, softball or baseball, swimming, bowling, or any other sport that could cause injury to your healing sternum.

- Resume these or other similar activities slowly, and carefully work your way to how you were before surgery. For example, start first with an unweighted and slow movement golf swing, then putting, then a full golf swing.
- Resume highly exertional activities in short durations and with light weight. Evaluate how the activity impacts you in real time and 24-48 hours after the activity. If you feel well, continue to increase your activity. If you feel worsened pain or soreness, decrease the extent of activity, and try increasing again in 1-2 weeks as tolerated.

For 3 months after surgery, do NOT:

- Run, walk, or bike vigorously.
- Play sports like tennis, golf, softball, swimming, or bowling, or do any other sport that could cause injury to your sternum.

Pay Attention to Your Body

Slow down if:

- Your body is working at more than a moderate level of effort (greater than 5 on a scale of 0 to 10).
- For more than 10 minutes after you STOP exercising, you are very short of breath or your pulse is 20 beats per minute higher than when you started exercising.
- You cannot sleep, or you feel more tired than normal the day after you exercise.
- You have arthritis and it flares up, or you feel pain in your joints, heels, or calf muscles.
- You have increased swelling in your legs or feet.

Do not exercise and call your care team if:

- You have a cold, flu, or fever.
- You have diabetes and it is out of control.
- You feel extreme emotional stress or much more tired than normal.

Call your doctor if:

- You have pain or pressure in your chest, arms, or throat.
- You are dizzy, lightheaded, have blurry vision, or feel faint.
- You are confused or suddenly clumsy.

If you need medical care right away, call 9-1-1.

Questions?

Your questions are important. Your physical therapist will answer your questions about exercise during your therapy sessions in the hospital.

Call your doctor or healthcare provider if you have questions or concerns about your medical care.