



WHAT TO EXPECT AFTER HEART SURGERY



THE SOCIETY OF
THORACIC SURGEONS

This guide is presented as a service by The Society of Thoracic Surgeons to help answer questions patients and their families have about heart surgery. Always follow your doctor's specific instructions if they differ in any way from those listed here.

Each individual patient responds to surgery differently. You are unique! And recovery from each specific surgical procedure, whether a coronary artery bypass for clogged arteries or a valve repair/replacement for a narrow or leaky valve, is somewhat different as well. Despite these differences, however, some generalizations can be made.

IT'S NORMAL TO...

- Not have much appetite. It takes several weeks for your appetite to return. Many patients notice that their sense of taste is diminished or almost absent. It will return. Some patients even complain of nausea at the smell of food for a week or two after surgery.
- Have some swelling, especially if you have an incision in your leg. That leg will tend to swell more for some time. Elevating your legs will help. Wear your elastic TED hose if they were prescribed for you.
- Have difficulty sleeping at night. You may find it difficult to fall asleep, or you may find that you

wake up at 2 or 3 a.m. and cannot fall back to sleep. This will improve. Taking a pain pill before bed sometimes helps.

- Have problems with constipation. You may use a laxative of your choice. Add more fruits, fiber and juice in your diet.
- Have mood swings and feel depressed. You may have good days and bad days. Do not become discouraged. This will get better.
- Have a lump at the top of your incision. This will disappear with time.
- Notice an occasional clicking noise or sensation in your chest in the first days after surgery. This should occur less often with time and go away completely within the first couple of weeks. If it gets worse, call your surgeon.
- Experience muscle pain or tightness in your shoulders and upper back between your shoulder blades. This will get better with time. Your pain medicine will also help relieve this discomfort.

It takes four to six weeks to start feeling better. Remember to take all medication as prescribed by your doctor. If an artery in your chest, called the mammary artery, was used during your surgery, you may experience numbness to the left of your incision. This is normal. If you have steri-strips on your incision, you may remove any that have not already fallen off after one week. Follow the exercise program given to you by your physical therapist in the hospital.

CARE OF YOUR INCISION:

While in the hospital, follow your doctor's instructions. After discharge, most surgeons would agree that it is safe to wash your incisions daily (directly over the tapes) with mild soap and warm water. Avoid vigorous scrubbing. The tapes may even fall off on their own. Any remaining tapes can be removed seven days after discharge. You might go home with staples in your leg. The visiting nurse will remove the staples as ordered by your physician. Because incisions sunburn easily, be sure to protect them from overexposure to sunlight during the first year after surgery. The scar will pigment more (be darker) if exposed to the sun. Do not apply any lotions, creams, oils, or powders to your incisions unless prescribed by your cardiac surgeon.

Check your incisions daily. Notify your doctor if you notice any of the following:

- Increased tenderness of the incision line
- Increased redness or swelling around the edges of the incision line
- Any drainage from the incision line
- A persistent fever

CARE OF YOUR SURGICAL LEG:

If your surgery involved taking a bypass graft from your leg, follow these guidelines:

- Care for your leg incision as described above.
- Avoid crossing your legs because this impairs circulation.
- Avoid sitting in one position or standing for prolonged periods of time.
- Elevate your leg on a stool or coffee table when sitting. You can also lie on a couch and elevate your leg on the arm of the couch.

- Check your leg daily for swelling. The swelling should decrease when you elevate your leg, but it might recur when you stand. If you continue to have leg swelling or it becomes worse, notify your doctor.
- If elastic stockings (TED HOSE) were prescribed for you, wear the elastic stockings while you are up for at least two weeks after discharge. The stockings help decrease swelling, especially if you have a leg incision.
- Remove your stockings at bedtime. Wash the stockings with mild soap and water, and dry them on a line.

MEDICINES:

The doctor will give you prescriptions before you leave the hospital. It is important to have your insurance cards with you to help speed up the filling of your prescriptions. Take the medicine exactly as your doctor prescribes. Keep a current list of your medicines, dosages, and times to be taken in your wallet or purse. Do not take other medication without telling your doctor. Additional information about your medicines will be provided by your nurse or pharmacist before you are discharged.

SIDE EFFECTS:

It is important to understand that medicines can cause side effects. If you have any of the following side effects from medication, you should call your physician's office.

- Excessive nausea, diarrhea, constipation, or stomach pain
- Vomiting
- Dizzy or lightheaded when standing
- Confusion
- Tingling in hands and feet
- Extremely slow or fast pulse
- Skin rash
- Unusual bruising or bleeding

CARDIAC SURGERY DISCHARGE

SYMPTOMS

| |
|----------------------------------------------------------------------------------------------|
| Bright red stool |
| Chest pain (angina-like) similar to pre-op |
| Chills or fever |
| Coughing up bright red blood |
| Fainting spells |
| Heart rate faster than 150 beats/minute with shortness of breath or new irregular heart rate |
| New onset of nausea, vomiting or diarrhea |
| Severe abdominal pain |
| Shortness of breath not relieved by rest |
| Sudden numbness or weakness in arms or leg |
| Sudden, severe headache |

NEEDS IMMEDIATE ATTENTION
Go to the Local Emergency Room or Call 911

| |
|-----------------------------------------------------------------------------------------------------------|
| Acute gout flare-up |
| Elevated temperature more than 100.0 F or 38.0 C two times within 24 hours |
| Extreme fatigue |
| Pain in calf that becomes worse when pointing toe up to head |
| Persistent bleeding or oozing from incisions |
| Sharp pain when taking in deep breath |
| Skin rash |
| Urinary tract infection: frequent urination, burning with urination, urgency with urination, bloody urine |
| Weight gain of more than one to two pounds within 24 hours |
| Worsening ankle swelling or leg pain |
| Worsening shortness of breath |

URGENT PROBLEMS
Call Local Doctor

CALL THE CLINICAL NURSE SPECIALIST/CASE MANAGER WITH QUESTIONS RELATED TO:

| | | |
|----------------------------------------|------------------------|------------------------------|
| Helpful community services or agencies | Incisional care | Postoperative recovery |
| Discharge instructions | Home health care | Questions related to surgery |
| Draining or reddened wounds | Management of symptoms | |

WHAT YOUR DOCTOR/NURSE MIGHT ASK IF YOU CALL:

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| How long have you had these symptoms? | What medications are you currently taking? |
| What was the date of your hospital discharge? | Does the visiting nurse come to see you? |
| Regarding incisional drainage: color of drainage, does it have an odor, how long has it been draining, is the drainage getting better or worse? | |

ACTIVITY

Stop any activity immediately if you feel short of breath, notice irregular heart beats, feel faint or dizzy, or have chest pain. Rest until the symptoms subside. If they do not subside within 20 minutes, notify your doctor.

Showers: You can take showers after your pacing wires and staples are out. Avoid soaking in baths until your incisions are healed. Avoid extremely hot water.

Dress: Wear comfortable, loose fitting clothes that do not put undue pressure on your incisions.

Rest: You need a balance of rest and exercise for your recovery. Plan to rest between activities and to take short naps as necessary. Resting also includes sitting quietly for 20-30 minutes. Rest 30 minutes after meals before exercising.

Walking: This is one of the best forms of exercise because it increases circulation throughout the body and to the heart muscle. It is important to increase your activity gradually. Walk at your own pace. Stop and rest if you get tired. Each person progresses at a different rate after heart surgery. Physical therapists will provide you with an individual plan for exercise before your discharge. It is important to pace your activities throughout the day. Do not try to do too many things at one time. In poor weather, lower than 40 degrees or above 80 degrees, you can walk at indoor shopping malls. In cold weather, wear a scarf or mask around your mouth and nose.

Stairs: Unless your doctor tells you differently, you can climb stairs. Take them at a slow pace. Stop and rest if you tire. When using the handrail, do not pull yourself up with your arms. Use your legs.

Sexual: You can resume sexual relations when you feel comfortable. For many people this is about two to four weeks after discharge unless instructed differently by your doctor. Please ask your nurse for more detailed information, if needed.

Driving: You can ride as a passenger in a car at any time. Avoid driving, outdoor bicycling, or motorcycle

riding for six weeks after surgery. This time period is recommended to allow your breastbone (sternum) to heal. Your movements might also be limited and slow before the six weeks are up. When traveling, be sure to get out of the car every two hours and walk around for a few minutes.

Lifting: You should not put too much strain on your sternum while it is healing. Avoid lifting, pushing, or pulling anything heavier than 10 pounds for six weeks after surgery. This includes carrying children, groceries, suitcases, mowing the grass, vacuuming, and moving furniture. Don't hold your breath during any activity, especially when lifting anything or when using the rest room.

Work: Most patients will begin to feel like returning to light work six to 12 weeks after surgery. Check with your surgeon before returning to work.

Visitors: Limit your visitors for the first couple of weeks. If you get tired, excuse yourself and lie down. Your visitors will understand.

EXERCISE GUIDELINES:

Stop any exercise if you experience shortness of breath, dizziness, leg cramping, unusual fatigue, and/or chest pain (angina). Notify your doctor if these symptoms persist.

If your post-exercise pulse rate is more than 30 beats faster than your resting pulse rate you have exercised too hard.

In order to correct these conditions, you will need to modify your next exercise session.

PULSE ASSESSMENT:

Monitoring your pulse rate helps to keep your activities within a safe heart rate range. To take your pulse, place your index and middle fingers on the lower part of your thumb, then slide your fingers down to your wrist. If you do not feel the pulse, try moving your fingers over a little bit in the same area. Once you can

WHEN TO RESUME USUAL ACTIVITIES

| FIRST 6 WEEKS | → | AFTER 6 WEEKS | → | AFTER 3 MONTHS |
|----------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------|
| Light housekeeping (dusting, setting the table, washing dishes, folding clothes) | | Continue activities of first six weeks (but you may be able to tolerate more). | | Continue activities of one to three months (but you may be able to tolerate more). |
| Light gardening (potting plants, trimming flowers) | | Return to work part-time if your job does not require lifting, and returning is approved by your surgeon | | Heavy housework (scrubbing floors) |
| Needlework, reading | | Heavy housework (vacuuming, sweeping, laundry) | | Heavy gardening (shoveling snow, digging) |
| Cooking meals | | Heavy gardening (mowing lawn, raking leaves) | | Sports: football, soccer, softball, baseball, tennis, bowling, golfing, swimming, water skiing, skydiving, hunting |
| Climbing stairs | | Ironing | | Jogging, bicycling, weight-lifting, push-ups |
| Small mechanical jobs | | Business or recreational travel | | Motorcycle riding |
| Shopping | | Fishing, boating | | |
| Attending sports events, church, movies, and restaurants | | Light aerobics (no weights) | | |
| Passenger in car | | Walking dog on leash | | |
| Walking, treadmill, stationary bike | | Driving a small car or truck | | |
| Shampooing hair | | | | |
| Playing cards/games | | | | |

Keep in mind that all of these activities need to be in the 10 pound weight limit or less until six weeks after surgery.

feel the pulse, count it for 15 seconds and multiply by four. This will tell you how many times your heart is beating in one minute. Your doctor or their nurse can help you find your pulse if you have difficulty.

CARDIAC REHABILITATION:

Cardiac rehabilitation is a way for people who have had bypass, valve replacement, transplant, or other cardiac surgical procedures to get going again. A team of physicians, nurses, exercise physiologists and nutritionists will help you feel well again by lead-

ing you through a rehab program designed to fit your needs. There are four phases of cardiac rehabilitation.

PHASE 1

Phase I begins early after a cardiac event, while you are still in the hospital. This phase usually includes light supervised exercise such as walking the halls and stair climbing. Additional education is provided by hospital nurses and physical therapists. You should ask the hospital staff about risk factors, diet, medication instruction, sexual activity, exercise and normal life at home.

PHASE II

Phase II is the early outpatient phase of cardiac rehabilitation. This phase usually requires a physician referral and involves telemetry monitoring. Entrance into the program is usually two to six weeks after discharge from the hospital. Most programs meet for one hour three or more times per week for 12 weeks. Phase II aims to return you to normal active life.

To goals of Phase II are:

- Improve functional capacity and endurance
- Provide education of lifestyle changes
- Reduce fear and anxiety about increased activity or exercise
- Assist in making optimal social and psychological adjustments

Education is a major emphasis in the Phase II program and is accomplished through individual or group instruction. Educational topics include:

- Medication review
- Lifestyle changes and goal setting
- Nutrition counseling with a registered dietitian
- Stress management
- Safe performance of activities including sexual activity, vocational and recreational pursuits

Your spouse or other family members are encouraged to attend the education sessions with you.

PHASE III

Phase III is a continuation of the Phase II program. As a general rule, Phase III programs include participants who were discharged from the hospital six to 14 weeks earlier. A physician may refer you directly into this program without Phase II participation.

The goals of Phase III are:

- Provide an ongoing exercise program
- Offer support necessary to make lifestyle changes
- Achieve the desired goal, such as, independent lifestyle or return to work
- Prevent progression of heart disease

The program offers monitoring of heart rhythm, rate and blood pressure before, during and after exercise. Records of your exercise routines are required. These routines generally occur three or more times per week.

PHASE IV

Phase IV is a wellness program for those who have completed any of the other phases. Phase IV is a means to continue working on improving lifestyle changes. You exercise three or more times per week with minimal staff supervision.

DIET:

Your doctor will probably recommend that you follow a low fat, no added-salt diet after discharge. This may reduce your risk of a heart attack in the future and your risk for requiring angioplasty or surgery again. You should try to have less than 30 percent of your calories from fat. Try to control your weight and eat less saturated fat and cholesterol.

The American Heart Association recommends that saturated fatty acid intake should be 8 to 10 percent of calories. Polyunsaturated fatty acid intake should be up to 10 percent of calories. Monounsaturated fatty acids make up the rest of the total fat intake, about 10 to 15 percent of total calories. Cholesterol intake should be less than 300 milligrams per day. Sodium intake should be no more than 2,400 milligrams (2.4 grams) per day.

Avoid adding salt in cooking or at the table. Begin making changes to your diet when your appetite returns to normal.

DAILY WEIGHT

- Weigh yourself at the same time each morning after you urinate but before you eat breakfast. Use the same scale every day.
- Keep a record of your daily weight.
- Notify your doctor if you gain two pounds or more overnight.

If you have questions following your surgery, please contact your doctor's office.