



# **BYPASS HEART SURGERY**

PATIENT'S GUIDE



## MESSAGE FROM THE CHIEF OF CARDIOTHORACIC SURGERY

Cardiac surgery is not just a procedure, it is a journey that involves careful preparation, expert surgical care, and committed recovery.

This patient guide has been developed to help you and your family understand each step of this journey. The instructions and recommendations outlined in this booklet are based on years of clinical experience and internationally accepted best practices. Following them closely before and after surgery plays a vital role in ensuring a safe procedure, smooth recovery, and the best possible long-term outcomes.

At Tabba Heart Institute, our surgical, anesthesia, nursing, and rehabilitation teams work together with a single goal: your safety and recovery. However, successful treatment is a partnership. Your understanding, cooperation, and adherence to these guidelines significantly contribute to reducing complications and improving healing.

I strongly encourage you and your family members to read this guide carefully and discuss any questions with our clinical team. We are committed to supporting you at every stage of your treatment.

**DR. AHSON MEMON**

Chief of Cardiothoracic Surgery  
Tabba Heart Institute



## Coronary Artery Bypass Graft Surgery(CABG)

Bypass surgery is a surgical operation in which the surgeon uses a section of vein, usually taken from the patient's leg, or an artery from inside the patient's chest to create a new route for oxygen-rich blood to reach the heart muscle.

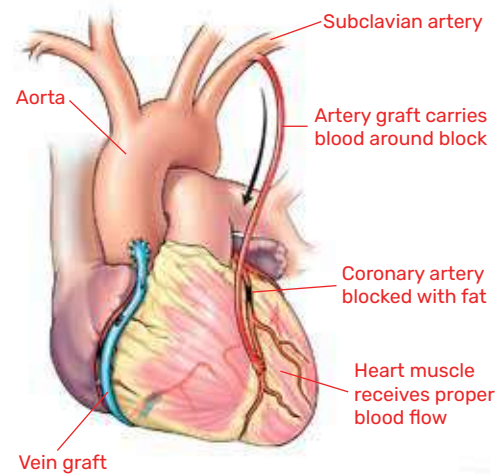
The purpose of Coronary Artery Bypass Graft (CABG) surgery is to improve blood flow to the heart. Increased blood flow helps eliminate chest pain (angina pectoris) that occurs with exertion and, in some patients, even at rest. CABG improves quality of life, increases exercise capacity, reduces the need for medication, and restores a sense of well-being. In patients with severe coronary artery disease, it can also prolong life.

The operation has been shown to prevent life threatening heart attacks.

This booklet will help you understand how care is delivered to you by a highly skilled team of doctors, nurses and technicians before, during and after your Open Heart Surgery.

It is teamwork. Your help will ensure that you will get the most benefit from your surgery.

### Coronary artery bypass grafting (CABG)



## 1: Before Surgery

### Conventional Bypass Heart Surgery

Coronary Artery Bypass Graft Surgery is an operation, in which arteries or veins are taken from another part of the body to establish blood flow to the coronary arteries. The artery used on the inside of the chest alongside the breast bone is called the internal mammary (IMA) or internal thoracic artery.

The vein that is usually used, comes from the skin on the inside of the leg is called the saphenous vein. These arteries or veins are connected directly to the coronary arteries, bypassing the narrowed or obstructed area.



### Bypass surgery is not a cure for Heart disease

It is a form of treatment that relieves symptoms and improves the quality of life for many patients. Coronary artery disease is a steadily progressive illness and may eventually clog the remaining arteries of the heart as well as the bypasses. It is essential that you reduce your risk for heart disease by controlling your heart-risk factors. This will ensure that you get the best long-term result from your bypass surgery.

## Patient Stay:

A patient who undergoes CABG surgery usually stays in the ICU for approximately 1-2 days, with a total hospital stay of 5-7 days.

## Preparing for Surgery:

**01** Registration And Pre-admission Process

**02** Meet Surgery Team

**03** Instructions for the Night Before Surgery

**04** What to Expect on the Day Of Surgery



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## Registration and Pre-Admission

- If you are visiting a surgeon in OPD, he will give you accommodation form on which your date of admission & date of surgery will be mentioned.
- You should bring your previous medical data, CD of angiography and medical prescription.
- Notify your blood Group on OPD visit, if possible.
- You have to report to the billing at sharp 10:00 am on the day of admission because of arrangements of blood, products and lab investigations.



## Arriving at the Hospital:

Once you are admitted to your chosen accommodation you will be provided hospital gown. All clothing and other valuables should be given to your family members or the person who accompanies you.

## If you are an In-Hospital Patient:

If you are already hospitalized, you will be given your approximate time of surgery the day before your operation.

You may not return to the same room/bed after your surgery.



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## What to do the Night before Surgery:

- Your surgical nurse will provide you with these instructions the night before surgery.
  - The night before your surgery, you can eat a normal meal, but do not eat, drink or chew anything after 12 o'clock midnight. This includes gum, mints, water, etc.
  - When brushing your teeth, avoid swallowing any water.
  - Before your operation, much of your body hair will be shaved off, especially from your chest and legs.
- Bath or take a shower, wash from your neck down with the antibacterial soap provided.
  - Women should not wear any makeup and must remove any nail polish.
  - You should leave jewelry, watches, money and other valuables at home or with the person who accompanies you.



## 2: During Surgery

### Arriving in the Operating Room:

Ward nurse will give your proper information to OR staff, once you are received in OR, you will spend some time in waiting area.

The operating room is cool, bright and can sometimes be a little noisy. If it is too cold for you, please ask your nurse for a blanket. An operating room nurse will ask you for your name, age and the name of your surgeon & will make sure that you understand the intended surgery. To guarantee that you are properly identified, your chart and identification bracelet will be checked again in the operating room.

The cardiothoracic anesthesia team will start to administer your anesthesia, which will begin to make you feel sleepy and heavy. Your cardiothoracic anesthesiology team will be using state-of-the-art equipment and safety features, including monitors and fail-safe mechanisms that ensure you are safely anesthetized at all times.



## Recovering in the Intensive Care Unit (ICU)

### Waking up in ICU:

Immediately after your surgery, you will be taken to the intensive care unit (ICU) for recovery, where a team of specially trained cardiothoracic nurses will take care of you. Their goal is to help you recover as quickly and safely as possible. Along with your surgeon, members of the cardiothoracic anesthesia, surgical teams who took care of you in the operating room will continue to follow your progress in the ICU. There is a small chance of bleeding post-surgery in initial hours and may need a revisit to OR.

ICU is a busy place, you can expect bright lights and a great deal of activity during the day. Many of the sounds you will hear are made by monitors & different types of equipment. Your medications, including those for pain control, will be given through intravenous (IV) tubes at very controlled rates using pumps.

To help you breathe, an endotracheal tube (breathing tube) was inserted while you were asleep. This tube is connected to a respirator that assists your breathing, because you will not be able to talk or swallow while this tube is in place, your nurse will anticipate your needs and ask you questions that require only a yes or no answer. Nod your head to say yes and shake your head to say no. When you are fully awake and breathing on your own, the breathing tube will be removed and you will be able to talk.



It is normal to feel cold and to shiver for a short while after you arrive in ICU. Your nurse will give you blankets to keep you warm. It is also normal to wake up feeling thirsty, because of the medications you received before or during surgery or because you had nothing to eat or drink before your operation. Despite your thirst, your fluid intake will be limited in type and amount while you are in the ICU.

Blood transfusion may be required during ICU stay as per the need of PT.

### Controlling pain:

Although all patients are concerned about the pain they will experience, pain after surgery is not as severe as most patients anticipate.

To control your pain, you will be given medications that are injected or given orally.

As soon as your breathing tube is removed, you should begin using your incentive spirometer, followed by coughing exercises. You should continue these exercises every hour while you are awake.

### • Coughing and Deep breathing:

As you recover in the ICU, the nurses will monitor your blood pressure, pulse rate & breathing. To prevent postoperative pneumonia, the nurses & respiratory therapists will periodically remove any secretions that may have settled in your lungs during surgery.

### Movement and Changes in Position:

While you lying in bed, moving and changing position will help you improve blood flow in your legs and remove secretions in your lungs.

You can move your feet, wiggle your toes and point your toes up toward your head and then down toward the foot of the bed. Your nurse will help you change positions by turning you from one side to another.

### Discharge from ICU:

Your surgeon & anesthesiologist will determine the best time for you to be transferred from the ICU to the HDU.

Most patients are transferred the day after surgery. If you remain in the ICU for more than a day, your surgeon or a member of your surgery team will explain the specific reasons for the delay.

The extra time spent in ICU is often for precautionary reasons & may not indicate any problem.

## Private Room/Semi Private/General Ward

### Resuming Activities:

After your stay in ICU, you will be shifted to the relevant ward, once you are stable. Your health care team will follow your progress and help you recover as quickly as possible.

You should be able to increase your activity once you are relocated to the room/ward.

Begin by sitting in a chair & slowly increase your activity until you are taking several walks a day.

As soon as you are able to walk, you will be assisted to the bathroom to perform daily hygiene such as brushing teeth and washing. You will be encouraged to do this on your own to help speed your recovery, but you should always ask your nurse if you need any help.

If you are experiencing discomfort, please ask your nurse for pain medication. The nursing staff will assess your level of discomfort & administer pain medication as needed.

## After Surgery

### Returning Home:

Getting discharged from the hospital is usually a great relief, but can sometimes cause some anxiety. Be assured that we would not discharge you unless we are confident in your progress and felt you were physically able to return home.

When you are discharged from the hospital, you will receive instructions about your home care from your surgery team and nursing staff.

These will include your rehabilitation program, any medications you may require, your return appointment time and any other information you may need.

### Recovery:

Recovery at home usually takes six to eight weeks, depending on your condition before surgery.

Minor aches & pains are normal in the first few weeks following surgery.

If you are too uncomfortable to exercise, take your prescribed pain pills as directed 30 minutes to one hour before activity.

## Resuming Activities and Exercise After Heart Surgery

### Lifting and Reaching:

■ If your surgery required an incision on your sternum (breastbone), it will take about 6-8 weeks for your sternum to heal. During this time, you may do light household chores, such as shopping, cooking, light gardening, dusting, and washing dishes when you feel up to it.

■ Do not lift, push or pull objects heavier than 5 pounds/2.25 kgs until your doctor says it is okay to do so.

■ Try not to stand in one place for longer than 15 minutes. Do not sit for more than an hour; take a break for a few minutes and walk around or move your legs.



### Physical Activities:

■ Avoid any activity or sport that may result in a traumatic injury. You may do light, quick activities where your arms are above your shoulders, such as brushing your hair, but do not engage in any activity where your arms are above shoulder level for a long time, such as washing a window or dusting a high shelf. Do not do any activity that causes pain or pulling across your chest.

■ To get the most out of your day, plan to do the most important activities first. Don't try to do everything at once, rather schedule unfinished activities for another day. Make sure that you get plenty of rest in between activities.



## Climbing Stairs & Steps:

■ It is okay for you to climb stairs and steps. Because you may be off-balanced after surgery, be careful and hold the handrail when walking up & down stairs. If you need to, stop and rest before you finish walking up or down a full flight.

■ After bypass surgery, this is usual recommendation for wearing sternal belt upto 6 to 8 weeks along with stockings.



## Fatigue:

■ Fatigue is probably the number one patient complaint following heart surgery. Fatigue results from an extended lack of sleep while in the hospital, energy used by your body to heal its wounds and energy used to fight off pain. To combat fatigue, listen to what your body is telling you. Space your activities to allow for rest periods.

■ Take plenty of naps, walk regularly, eat well & use your pain medication as needed. Take rest whenever you feel tired.



## Driving and Riding in a Car:

■ You should not drive for 4-8 weeks from the date of your surgery.

■ You may be a passenger in a car at any time. Make sure to wear your seat belt. You may cushion your incision with a soft towel or pillow.



## Returning to Work:

■ Returning to work depends upon the type of work you do and your energy level.

■ It usually takes 4-6 weeks before most patients feel they have returned to their full energy level.

■ The decision to return to work should be made jointly between you and your surgeon.

■ You may want to consider working half days at first.

## Sex:

■ You may resume sexual activity after 6-8 weeks of your surgery.

However, you may find that pain along your incision may limit your activity to a certain extent.

■ Just remember that during the first eight weeks after surgery, any activity or position that causes pain or pulling across your chest, such as bearing weight on your arms, must be avoided.

## Traveling:

■ Delay vacations or extended trips away from home for approximately 2-3 weeks, or until after the first post operative visit with your surgeon.

■ Avoid air travel for two weeks from the date of your discharge. If you want air travel then you will get travel certificate from the Hospital

■ This restriction is designed to prevent you from being too far away from your surgeon in case any problem arise.



## Healing of Wounds & Bruising on Ankle:

■ The wounds require about six to eight weeks to heal completely. There may be some tendency for the ankle to swell in the leg from which the veins were taken for bypass. You may also feel a burning sensation when standing up on the leg from where the vein was taken.

These conditions gradually disappear in few weeks but sometimes swelling takes few months to go away.

■ If you are diabetic, your blood sugars should be monitored daily and kept within the optimal range. Poorly controlled blood sugar increases the risk of wound infection, so strict monitoring of your blood sugar chart is essential.



## Exercise:

Proper exercise will help your healing and recovery as well as increase your stamina, and lower stress in your everyday life.



## Tips of Exercising:

■ Check with your doctor or cardiac rehabilitation specialist regarding exercises that are safe for you to do immediately after surgery and in the long term.

■ Make your exercises a regular/daily routine. Try to walk every day and gradually increase your distance over time.

■ Instead of going for a straight distance, you may walk around your block several times so that you are always close to home.

■ Do not worry about how fast you are walking but concentrate on how much you are walking.

■ Take someone with you the first few times you walk.

■ Always wear comfortable clothes and shoes.

■ Don't exercise if the weather is too cold or too warm outside.

■ Because of the controlled temperature, an indoor shopping mall is a good place to walk.

■ Make sure you are not exercising too hard. Stop if you are exhausted, short of breath, feel dizzy, or have discomfort in your chest. Call your doctor if these symptoms persist and you are not able to do your regular exercises.



## First follow-up after Discharge:

You'll be given the appointment of first follow-up. A lab investigation paper will also be provided to you at the time of discharge which will have baseline labs mentioned to be done before first follow-up and you will have to bring the reports on the day of first follow-up visit. The labs will be:

- CBC
- Urea
- Creatinine
- Electrolytes
- X-ray (Chest)
- INR

Visit before discharge that is within 10 days from the day of discharge and it will be well explained by the designated nursing staff of your unit.



- There might be some other labs as well, which will be explained to you at the time of discharge.
- You must bring discharge summary, lab's reports and X-Ray with you on your first follow-up visit.

## When to call your Physician:

- Persistent Cough
- Fever more than 101°F or 38.5°C
- Excessive stained discharge from wounds
- Unrelieved nausea or vomiting
- Increased redness, tenderness or drainage of any surgical incision

- Extreme fatigue
- Palpitations or fast, irregular heartbeat
- Difficulty breathing
- Dizziness
- Fainting



## Mental performance:

- Immediately after surgery, you may not feel as sharp mentally. Your mental (cognitive) functions should return after you've recovered and rested.
- Over time your memory, concentration, orientation, and verbal understanding should return to normal.
- It may take a few weeks before you can resume performing mentally stressful tasks, so be patient.

## Prayers:

- Bending down on knees to bow on floor is not advised in prayers for up to 6 weeks after surgery.
- However, you may pray regularly by sitting in a comfortable manner.

## Resuming Normal Sleeping Patterns:

You should return to your normal sleeping patterns within 2-3 weeks.

Try these tips to help you sleep:

- Make sure you take enough rest breaks in between your normal daily activities, but avoid napping during the day.
- Talk to a trusted family member or a friend if you have something on your mind. Get it off your chest so it worries you less when you are trying to sleep.
- Avoid caffeine, especially after dinner. Remember that there is caffeine in regular coffee and some sodas, as well as chocolate and tea.
- Take a relaxing shower (or bath, daily & any type of soap).



- Take your pain medication about 1/2 hour before bedtime.
- Find a comfortable sleeping position by arranging the pillows.
- If you still have problems sleeping after 2-3 weeks, call your doctor.



## Night Sweats:

- 1: Patients often complain of night sweats for the first few weeks.
- 2: Should you experience this, check your temperature to make sure that you do not have a fever.
- 3: If your temperature is 101 degrees Fahrenheit or greater, call your doctor.
- 4: If you do not have fever, there is very little that can be done, but you should make yourself as comfortable as possible while waiting for the night sweats to go away.
- 5: Change your linens & pajamas so you do not sleep in a damp bed.
- 6: Night sweats usually disappear in a few weeks.
- 7: You must check (blood sugar) also when sweating.



## Disturbed Sleep:

- 1: Following surgery, some patients experience nightmares or insomnia. This will also disappear with time.
- 2: To help you sleep better, try shortening your naps during the day and/or increasing your afternoon activities.
- 3: It is OK to sleep on your back side. You will not hurt your incisions.



## Diet & Nutrition:

- Take a healthy diet, that is high in proteins.
- Along with exercise, eating healthy will speed up your recovery & healing.
- It is usual that you will not feel good appetite for up to 3 weeks.
- If your appetite is poor, try to eat smaller but more frequent meals.
- At the time of discharge dietician will answer your concerns regarding diet.

## Tips to Healthy Eating:

- Include Lean meat, fish, skinless poultry, eggs and plant-based proteins (lentils, beans), dairy products.
- Reduce intake of saturated fats like butter, ghee, and full-fat dairy.
- Eat plenty of fruits vegetables and grains
- Take small quantity of foods frequently
- Stay away from fried foods, packaged snacks, bakery items, and processed meats,
- Drink enough water unless fluid restriction is advised.



## Stop Smoking:

- If you smoke, quit.
- It's one of the best things you can do for your heart.
- If you smoke, your heart gets less oxygen, plaque builds up faster in your vessels and your risk for a heart attack is increased.
- Quitting reverses these risks.
- Even if you've tried to quit before and haven't, don't give up. Many smokers try quitting 4 or 5 times before they succeed.
- After bypass surgery, you should immediately quit smoking and chewing tobacco. Not doing so will severely increase the risk of graft blockage.
- Be persistent. Quitting takes time & will power.
- Avoid places where people are smoking.
- Stock up on sugar-free gum, vegetable sticks, or hard candy for when you feel like smoking.
- Think of daily activities or routines that give you the urge to smoke. Then change those routines if you can.



## Medications:

- During your hospitalization medications will be prescribed and carefully adjusted for you. Common medications include potassium, blood thinners & medications to control a rapid/irregular heartbeat.
- Your doctor will review your medications with you, including the correct dosage, frequency and side effects.

If you have any further queries, please discuss them with your surgeon, cardiologist or the nursing staff.



For More Details

Call Patient Facilitation Staff: 0320-9229200 Or 0320-9229300  
Monday to Saturday, Morning 9:00 am to Evening 6:00 pm



# PRECISION STERILIZED. PATIENT-FIRST. SURGERY-READY.

- At Tabba Heart Institute, patient safety begins long before surgery. In close coordination with the Central Sterile Services Department (CSSD), every surgical instrument undergoes a strictly controlled, internationally compliant sterilization process. From thorough cleaning and inspection to secure packaging and validated sterilization using advanced steam and low-temperature technologies, each step is continuously monitored to ensure absolute safety and quality.

## Key Highlights

- Internationally recognized sterilization protocols
- Advanced steam & low-temperature sterilization systems
- Chemical & biological indicators for sterility validation
- Continuous monitoring & detailed documentation
- Full compliance with global healthcare safety standards

**Our  
Quality  
Process**



## OUR SURGERY TEAM



Dr. Ahson Memon is the Chief of Cardiothoracic Surgery and a Consultant Cardiothoracic Surgeon at Tabba Heart Institute. He brings extensive experience in managing complex cardiac and thoracic surgical procedures and leads the department with a strong focus on patient safety, surgical precision, and clinical excellence. His leadership and commitment to international standards have played a key role in advancing high-quality cardiothoracic surgical care at the institute.



Dr. Malik Shafqat Hassan is a Consultant Cardiothoracic Surgeon with broad expertise in a wide range of cardiac and thoracic surgical procedures. He is known for his patient-centered approach, meticulous surgical technique, and dedication to delivering safe and effective outcomes. His contribution strengthens the overall quality and reliability of the cardiothoracic surgery services at Tabba Heart Institute.



Dr. Hafeezullah Bughio is a Consultant Cardiothoracic Surgeon who specializes in modern, evidence-based surgical practices. He is experienced in advanced cardiac surgical procedures and emphasizes teamwork, precision, and post-operative recovery. His commitment to excellence ensures high standards of care and optimal outcomes for patients undergoing cardiothoracic surgery.

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