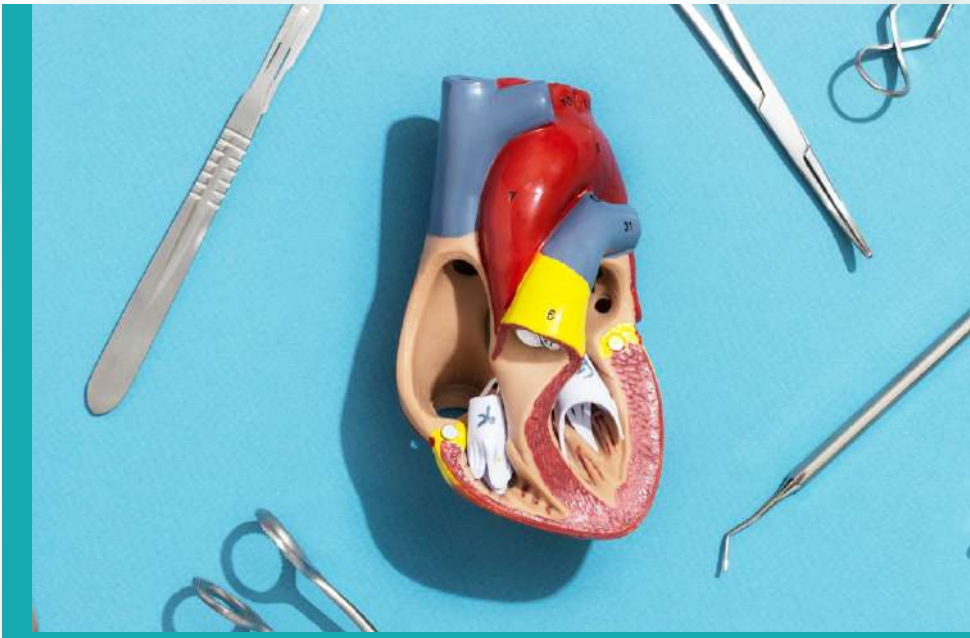
Subang Jaya
Medical Centre

Coronary Artery Bypass Graft **(CABG)**



back of cover page

Contents

01 **What is coronary artery bypass graft (CABG)?** Pg 4 - 5

02 **Patient Journey** Pg 6 - 10

03 **Wound Management Post-Surgery** Pg 11 - 13

04 **Dietary Advice: What to Eat?** Pg 14 - 17

05 **Physical Activity Post Surgery** Pg 18 - 19

06 **My Journey** Pg 20 - 23

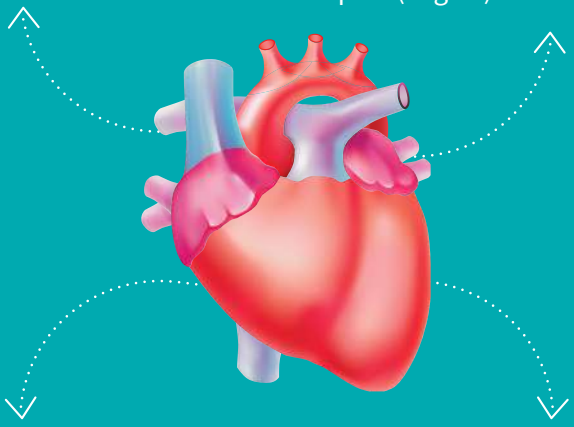


01

What is **coronary artery bypass graft (CABG)?**

A surgical procedure used to treat coronary artery disease (CAD).

CAD occurs when the blood vessels that supply blood to the heart muscle (coronary arteries) become narrowed or blocked due to a buildup of plaque leading to chest pain (angina) or heart attacks.



Recommended when other treatments are not sufficient.

The surgeon takes a healthy blood vessel (often from the leg, arm, or chest) and grafts it to create a new pathway for blood to flow to the heart muscle.

Learn more about the procedure from the American Heart Association (AHA)

What are the **benefits of CABG?**



Restoration of blood flow: CABG creates a new pathway for blood to flow to the heart muscle by grafting a healthy blood vessel (often from the leg, arm, or chest).



Relief of symptoms (chest pain): Allows you to engage in daily activities with less discomfort.



Reduce the risk of a heart attack with improved blood flow.



Enhanced quality of life. Improvement in overall quality of life, leading to a more active lifestyle.



The opportunity of a long life:
Helps reduce the risk of fatal cardiac events.



Long term durability and less need for medication.

What do I need to **prepare for CABG?**

Preparation involves a combination of your doctor and your family to understand the process from beginning to end of the journey. You and your family should find out as much as possible about the surgery, risks and benefits, cost, length of stay and recovery process. If you have any questions or concerns, please raise them with your doctor.

02
Patient **Journey**

Before Admission



- You will be advised by your doctor when to stop taking any medications that may increase the chances of bleeding (e.g. Aspirin, Plavix, Brilinta).



- You also need to inform your doctor if you are taking any traditional supplements e.g. Chinese herbs or any herbs (that may increase risk of bleeding).



- If you smoke, you are advised to stop smoking and/or vaping at least 6 weeks prior to surgery.
- You may require blood investigations and a Covid-19 test before being admitted.



On Admission Day



- You are admitted to the Cardiac Ward (Ward 2A at South Tower) a day before procedure day.



- The surgeon will discuss further about the surgery with you and your family. You may ask any questions you may have, and your informed consent will be obtained.



- The anaesthetist will ask any related questions about your past medical history and any known allergies. The anaesthetist's consent will be obtained.



- Hair in the chest, abdomen, leg, and any areas involved in the surgery is removed.



- You are required to be scrubbed with antiseptic surgical wash during your shower in the evening.



- Our Intensive Care Unit (ICU) nurse will share important pre-surgery information which will help you understand what happens post-surgery.



- A special test for lung function is ordered.
- You are required to fast and rest.

On Surgery Day



- You are scrubbed with antiseptic surgical wash at 6am.
- You will be given medication (mild sedative) an hour before surgery.



- Our staff nurse will transfer you to the operating theatre.
- Your family may accompany you from the ward, but they are not allowed into the operating theatre.



- Your family can wait in the waiting lounge located on Level 6, South Tower.

During Surgery



- The anaesthetist will put you under anaesthesia.



- Your surgeon will make an incision along the midline of your chest wall. Then, the surgeon will harvest the best vein and the bypass will be made from the selected graft.



- There will be one or more cuts in the leg or arm where the vein or artery is removed for the bypass.



- Once surgery is completed (it usually takes about 3 to 5 hours, depending on the complexity of the surgery), you will be transferred to ICU for recovery.

After Surgery



- You are closely monitored at ICU immediately after surgery.



- When you gain consciousness, you may feel discomfort due to the breathing tube. Some patients might feel disorientated, but it will slowly go off once your body and mind become more coordinated.

- Cardiac rehabilitation starts once the breathing tube is removed.



- You may need to stay in ICU for 3 to 4 days post-surgery.

- You will be transferred to the ward once stable where cardiac rehabilitation will continue until the day of discharge.



- The estimated length of stay might be 5 to 7 days.

For **Your Family**





- Inform our staff of your family's whereabouts and contact information, in case of an emergency.
- Visiting hours at ICU are from 10am to 1pm and 5pm to 8pm. Visitation in ICU should be brief to allow the patient to rest. Only 2 immediate family members are allowed at a time.
- You may contact our ICU nurse at 03-56391600 if you require further information.

What about the **recovery process?**

- For cardiac rehabilitation post-surgery, our physiotherapist will assist in deep breathing exercises, productive cough, and ambulation.
- You may experience pain and discomfort during these exercises however the pain will be tolerable with time.

Discharge



- You will be discharged when you are fit to go home. Your doctor will give you an appointment for the next visit.

Managing Expectations



Recovery time
Complete recovery and a return to normal activities may take several weeks to months depending on the individual.



Pain and discomfort
It is common to experience some pain and discomfort after surgery. Pain management will be addressed by our healthcare providers.



Physical activity
Cardiac rehabilitation programmes are often recommended to help with this process.



Dietary changes
A heart-healthy diet is essential for recovery.



Medication management
It is important to take all medications as prescribed and attend follow-up appointments with your healthcare provider.



Wound care
Follow the care instructions provided by your medical team and report any signs of infection or complications.



Lifestyle changes
Adopt a heart-healthy lifestyle is essential for long-term wellbeing.



Follow-up appointments
Attend regular follow-up appointments with your healthcare provider. It is important to monitor your recovery progress.

03

Wound Management Post-Surgery

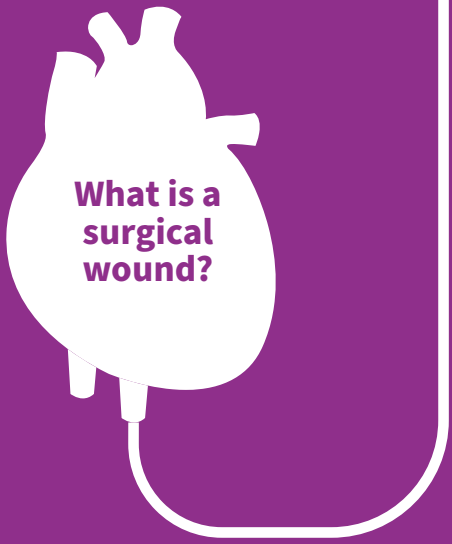
A surgical wound refers to an incision or cut made during a surgical procedure.

After surgery, proper care and attention to the surgical wound are essential to prevent infection and to promote healing.

There will be a suture to close the surgical wound.

The first wound inspection is usually done by the doctor 72 hours (about 3 days) after surgery.

The wound will be exposed if it is clean and dry.



What do you **need to know?**



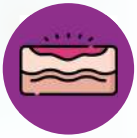
Follow Healthcare Provider Instructions

- Strictly adhere to the post operative care instructions provided by our healthcare team.
- Attend all follow-up appointments and communicate any concerns or changes in your condition immediately.



Keep Clean and Dry

- If you must touch the wound area, wash your hands thoroughly.
- Gently clean the incision area with mild soap and water, and pat it dry with a clean, soft towel.
- Avoid scrubbing the incision.



Monitor For Signs of Infection

- Redness, swelling, warmth, or discharge.
- Report any signs of infection, including fever or chills, to your doctor promptly.



Dressing

- Seek immediate treatment if any discharge seen.



Avoid Irritants

- Avoid applying creams, lotions, or ointments to the incision site.
- Do not use adhesive bandages or tapes directly on the wound.



Protect The Wound

- Be mindful of clothing and avoid tight or abrasive fabrics that may rub against the wound.
- Avoid activities that may put strain on the incision, such as heavy lifting.



Pain Management

- Take prescribed pain medications directed to manage discomfort and avoid undue stress on the incision area.



Things To Take Not Of

- Do not touch the wound unnecessarily – clean your hands before if you need to.
- If you experience increasing pain, swelling, redness, or any other concerning symptoms, contact your doctors promptly.
- Keep hygienic – regular shower and do not forget to wipe with separate clean towel to the wound. Do not be afraid to take regular baths.
- Ointment, powder, traditional cream, or herbs are prohibited.
- Change clean clothing every day.

04

Dietary Advice: **What to Eat?**

Diet After Operation

Coronary Artery Bypass Graft Surgery (CABG) has been used for the treatment of coronary artery disease (CAD). After the operation, it is important to lead a healthy lifestyle and continue taking any prescribed medicine. This will reduce your risk of getting heart problems in the future.

Many studies have shown that a diet rich in fruits, vegetables, wholegrains, and nuts can reduce the risk of heart disease.

1. Practice healthy meal planning.

Make sure your plate consists of proper proportion of carbohydrate (1/4 plate), protein (1/4 plate) and fibre from vegetables (1/2 plate).



2. Lower the bad fats.

Limit the intake of artificial trans-fat intake as high intake may increase the LDL-Cholesterol level and leads to heart disease. Artificial trans-fats may be found in processed food such as biscuits, frozen food, cookies and pastries.

Food high in saturated fat also may increase LDL-Cholesterol. This may be found in marbled meat, poultry with skin and deep-fried dishes.

Alternatively, try to choose food with ZERO Trans-fat, lean cuts of meat, poultry without skin, and trim as much fat as possible before cooking.

- **Saturated fats sources**



Organ Meat



Butter / Ghee



Full Cream Dairy Products



Meat with Skin & Fats



Fish Roe & Egg Yolk



Coconut & Palm Oil

- **Trans fat sources**



Stick / Hard Margarine or Vegetable shortening



Instant Frozen Goods



Fast Food



Baked Goods and Pastries



Fried Food

3. Consume healthy fats.

Unsaturated fats are considered good fats:

- Polyunsaturated Fat (PUFA)
- Monounsaturated Fat (MUFA)

PUFA contains Omega 3 that may help reduce total cholesterol, LDL-cholesterol, and triglyceride levels.

- **Food sources:**
  Salmon, mackerel (ikan kembung), tuna, sunflower oil, olive oil, sesame oil, nuts and seeds.

Choose cooking oil that is high in PUFA / MUFA and practice healthy cooking method such as stir frying, steaming, grilling or clear soup dishes.

Snack on nuts and seeds in moderation as it a good source of healthy fats (PUFA/MUFA).

- **Polyunsaturated fat sources**


Corn Oil


Sunflower Seeds /Oil


Soybean Oil


Oily Fish (Salmon, Tuna, Sardine, Mackerel)


Chia Seeds


Flaxseeds


Sesame / Oil


Walnut


Pumpkin Seeds


Pistachio Nuts

- **Monounsaturated fat sources**


Peanut Oil


Olive Oil


Canola Oil


Rice Bran Oil


Avocado


Cashew Nuts


Pecan Nuts


Almonds


Hazelnuts


Macadamia Nuts

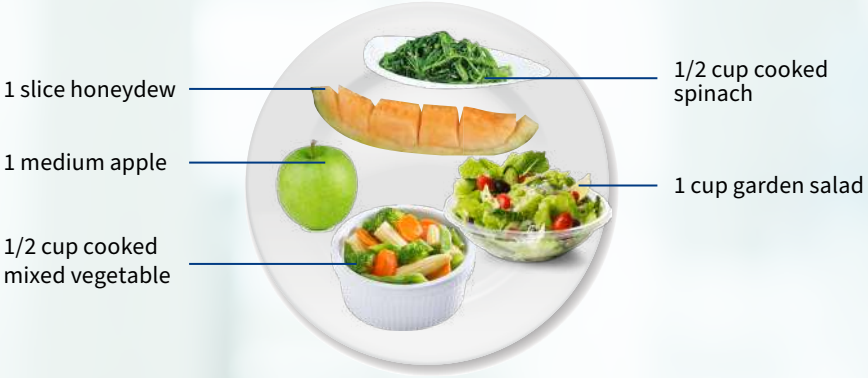
4. Load up on soluble fibre.

To lower blood cholesterol, soluble fibre plays a significant role.

Food Sources:

- Wholegrain products from oats, cereals, barley, multigrain rice/noodles, whole meal bread
- Green leafy vegetables from broccoli, kalian, sawi, kangkong
- Fruits such as guava, papaya, pears etc.
- Beans and legumes
- Reduce meat intake and replace them with beans and legumes such as chickpeas, dhall and beans as a source of protein.

It is recommended to have 2 servings of fruit and more tha f n 3 servings of vegetables daily, plus the wholegrains food sources, beans, and legumes. Example of daily intake for 2 servings fruits and 3 servings vegetables



5. Go easy on salt, sugar, and alcohol.

High salt intake increased blood pressure which is one of major risk factors of heart diseases.

High sugar intake contributes to excess calories and obesity, and it increases triglycerides level in blood which may lead to heart and blood vessel diseases.

High alcohol intake can lead to liver damage, weight gain, high blood pressure and high triglycerides. Try to limit consumption i.e.: one standard drink per day for women, and two standard drinks per day for men.

Standard drink sizes:

ABV = Alcohol by Volume



05

Physical Activity **Post Surgery**



Physical activity is a crucial component of the recovery process after Open Heart Surgery.

Engaging in regular exercise helps improve cardiovascular fitness, strength, and overall well-being.

However, it is essential to approach physical activity post-CABG with guidance from healthcare professionals to ensure safety and appropriate progression.



Gradual Progression
Begin with light activities such as short walks and gradually increase the duration and intensity over time.



Supervised Exercise Programme
Consider participating in a cardiac rehabilitation program where exercise is supervised by healthcare professionals.



Strength Training
Incorporate strength training exercises to improve muscle tone and overall strength. Start with light resistance and gradually increase as tolerated.



Flexibility and Stretching
Include flexibility exercises to improve joint mobility and reduce the risk of muscle stiffness. Stretch major muscle groups regularly, especially before and after exercise.



Listen to Your Body
- Pay attention to how your body responds to exercise.
- If you experience chest pain, dizziness, shortness of breath, or any unusual symptoms, stop the activity and seek medical attention.



Stay Hydrated
Drink an adequate amount of water to stay hydrated during physical activity.



Avoid Overexertion
- Be cautious not to overexert yourself, especially in the early stages of recovery.
- If you feel fatigued, take breaks as needed and gradually increase the intensity of exercise over time.

Patient Info

Patient Sticker

Weight

Height

BMI

Date of Diagnosis ≤ 18 months ≥ 18 months

Treating Cardiologist

Contact No.

Diagnosis & Summery

Patient Log

Date	Time	Remarks

Optimization Of Medical Therapies

Clinic Vist date			
	Drug Regimen (Name, dose & frequency)	Drug Regimen (Name, dose & frequency)	Drug Regimen (Name, dose & frequency)
Others	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds

Clinic Vist date			
Others	Drug Regimen (Name, dose & frequency)	Drug Regimen (Name, dose & frequency)	Drug Regimen (Name, dose & frequency)
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds
	Dose: Od//bd/tds	Dose: Od//bd/tds	Dose: Od//bd/tds

Scan me for more information

www.sjmcheartcentre.com

Subang Jaya Medical Centre
Owned by SJP Medical Centres Sdn. Bhd. Registration No. 198901004482 (181788-D)
(formerly known as RSD Hospitals Sdn. Bhd.)
Subang Jaya Medical Centre subangjaya_medicalcentre @subangjayamedicalcentre www.subangjayamedicalcentre.com **+603 5639 1212**